

NovaBACKUP Central Management Console®

User Manual



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Table of Contents

Table of Contents	2
Introduction to the Central Management Console	3
Installation Notes: NovaBACKUP v17.2	4
Minimum System Requirements	9
NovaBACKUP® CMC Quick Start Guide	10
Introduction:	10
CMC Installation	11
Connecting to the Agent	12
Installing the Software	13
Server Administration Utility	22
Accessing the Central Management Console	23
Logging In	23
The Dashboard	27
Getting Started with the Central Management Console	28
Users	28
Roles	28
Permissions	29
Configuring the Central Management Console	30
Adding an Agent	30
Agents	32
Groups	36
Getting Started With Backups	40
Configuring Backup Policies	41
Naming the Backup Policy	41
Selecting Files to be Backed up	42
Selecting a Destination for the Backup	47
Selecting a UNC Path as Destination for Backup	55
Determining the Settings for the Backup	56
Setting up a Backup Schedule	58
NovaBACKUP Client to CMC Backup Policy Sync	59
Restore Wizard Configuration	63
Where the Restore Wizard Resides	63
Settings	63
Technical Reference	64
Troubleshooting	65
The Management Service may not be started	66
The Web Server may not be started	66
A firewall may be blocking one or more required ports	66
The Management Service address may be incorrect	66
How to enable logging for the "Management Server" windows service	67
How to enable logging for the "Management Web Server" windows service	70
Contacting Technical Support	71

Introduction to the Central Management Console

NovaBACKUP Central Management Console (CMC) is a web based management console that allows the user to create, delete, and run backup or restore jobs on the computers that have NovaBACKUP installed on them. The CMC is a full management console that includes everything you would need in order to manage multiple installations of NovaBACKUP, whether those installations are on the local LAN or across the WAN.

Installation Notes: NovaBACKUP v17.2

NovaBACKUP PC

System Requirements:

- Pentium 4 or better
- 1 GB of RAM minimum
- 3 GB free hard drive available space on OS drive (Full installation size is approximately 300MB)
- Internet Explorer 8.0 or higher
- TCP / IP network

Supported Operating Systems (32 and 64 Bit for all versions):*

- Windows 10
- Windows 8.1
- Windows 8
- Windows 7 SP1
- Windows Vista SP2
- Windows XP SP3

NovaBACKUP Server

System Requirements:

- Pentium 4 or better
- 1GB of RAM minimum
- 3 GB free hard drive available space on OS drive (Full installation size is approximately 300MB)
- Internet Explorer 8.0 or higher
- TCP / IP network

Supported Operating Systems (32 and 64 Bit for all versions):*

- Windows 10
- Windows 8.1
- Windows 8
- Windows 7 SP1
- Windows Vista SP2
- Windows XP SP3
- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 R2 SP1
- Windows Server 2008 SP2
- Windows Server 2003 SP2

- Windows Small Business Server 2011
- Windows Small Business Server 2008 SP2
- Windows Small Business Server 2003

NovaBACKUP Business Essentials

System Requirements:

- Pentium 4 or better
- 1 GB of RAM minimum
- 3 GB free hard drive available space on OS drive (Full installation size is approximately 300MB)
- Internet Explorer 8.0 or higher
- TCP / IP network

Supported Operating Systems (32 and 64 Bit for all versions)*:

- Windows 10
- Windows 8.1
- Windows 8
- Windows 7 SP1
- Windows Vista SP2
- Windows XP SP3
- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 R2 SP1
- Windows Server 2008 SP2
- Windows Server 2003 SP2
- Windows Small Business Server 2011
- Windows Small Business Server 2008 SP2
- Windows Small Business Server 2003

NovaBACKUP Virtual Dashboard Requirements

NovaBACKUP Virtual Dashboard, Backing up and Restoring Virtual Machines with the ability to restore individual files, and Replication have separate system requirements than other parts of the product.

Supported Applications (Dashboard):

- Windows 10
- Windows 8
- Windows 8.1
- Windows 7 SP1
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2

Supported Hypervisors (Virtual Dashboard):

- Windows Hyper-V 2012
- Windows Hyper-V 2012 R2
- VMware vSphere ESXi (w/vStorage API)
- VMware vSphere 4.1 (w/vStorage API)
- VMware vSphere 5 (w/vStorage API)
- VMware vSphere 5.1 (w/vStorage API)
- VMware vSphere 5.5 (w/vStorage API)

NovaBACKUP Single Mailbox Restore

Single Mailbox Restore for NovaBACKUP is handled by the Ontrack PowerControls application. Below are basic system requirements but you can find more by checking with our support website:

<http://bit.ly/otpcinstall>

- *To restore Microsoft Exchange Server 2007:*
 - Microsoft Outlook 2003, 2007, 2010, or 2013 installed and configured (32-bit)
- *To restore Microsoft Exchange Server 2010:*
 - Microsoft Outlook 2003, 2007, 2010, or 2013 installed and configured (32-bit)
- *To restore Microsoft Exchange Server 2013:*
 - Microsoft Outlook 2007, 2010, or 2013 installed and configured (32-bit)

Supported Applications (Business Essentials):

Microsoft SQL

- Microsoft SQL 2014
- Microsoft SQL 2012 SP1
- Microsoft SQL 2008 R2 SP2
- Microsoft SQL 2008 SP3
- Microsoft SQL 2005 SP4

Microsoft Exchange

- Microsoft Exchange 2013 SP1
- Microsoft Exchange 2010 SP3
- Microsoft Exchange 2007 SP3
- Microsoft Exchange 2003 SP2

Microsoft Hyper-V

- Microsoft Hyper-V 2008 R2
- Microsoft Hyper-V 2012
- Microsoft Hyper-V 2012 R2

VMware (with vStorage API)

- VMware vSphere ESXi
- VMware vSphere 4.1
- VMware vSphere 5
- VMware vSphere 5.1
- VMware vSphere 5.5

Supported Backup Device and Media:

Local Devices:

- SCSI, IDE (Parallel-ATA), SATA, and SAS Hard Drives
- External Hard Drives — USB 1.1 / 2.0 / 3.0, FireWire
- Network Storage (SAN or NAS / Network Share with CIFS or SMB Support)
- Single Tape Drives
- Flash Storage (USB)

Offsite:

- NovaStor Service Provider
- FTP (FTP, SFTP, FTPS)
- Amazon S3

Disaster Recovery:

- Bootable CD / DVD Recorder and CD / DVD Media is required (Or USB)
- Local / Removable Hard Drive
- NAS Devices

Backing up Virtual Machines (Microsoft Hyper-V)

Backing up Microsoft Hyper-V is supported only on Microsoft Server operating systems (not Windows 8 / 8.1). In order to back up Microsoft Hyper-V virtual machines, you will need to have NovaBACKUP Business Essentials installed on the Hyper-V Host Operating System.

Backing up Virtual Machines (VMware vSphere)

You will need NovaBACKUP installed on a machine (Physical or Virtual) with a supported operating system and your VMware vSphere installation requires the vStorage API. The machine that NovaBACKUP is installed onto needs to have network connectivity to your VMware vSphere server. NovaBACKUP may be installed on a Virtual Machine but will not be able to directly back up its own Virtual Machine.

* Disaster Recovery backups and images do not support any Tablet-based devices

NovaBACKUP Central Management Console

System Requirements:

- Pentium 4 or better
- 512 MB of RAM minimum
- 3 GB free hard drive available space on OS drive
- Internet Explorer 11.0 or higher
- TCP / IP network
- .NET 3.5 SP1
- .NET 4
- Windows PowerShell 1.0

Supported Operating Systems:

- Windows Server 2008 SP2
- Windows Server 2008 R2 SP1
- Windows Server 2012
- Windows Server 2012 R2

Note: All installations require an Administrator Account and cannot be installed under a Limited User Account

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Minimum System Requirements

Operating Systems:

- Microsoft Windows XP SP3 (32 or 64 bit)
- Microsoft Windows Vista SP2 (32 or 64 bit)
- Microsoft Windows 2003 Standard/Enterprise SP2 (32 or 64 bit)
- Microsoft Windows 2008 Standard/Enterprise SP1 (32 or 64 bit)
- Microsoft Windows 7 (32 or 64 bit)
- Microsoft Windows Server 2008 SP2
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2

Connectivity to one of the following:

- Microsoft SQL 2005 SP2+
- Microsoft SQL 2008
- Built in SQLite database

Miscellaneous

- .NET 3.5 SP1
- .NET 4.0
- Internet Explorer 8.0 or higher*
- IIS with IIS 6 compatibility or utilize the built in standalone web server
- Pentium 4 or better
- 512 MB of RAM minimum
- 3 GB free hard drive available space on OS drive
- TCP / IP network
- Windows PowerShell 1.0

***Note:** Windows XP 32-bit users may use Mozilla Firefox or Google Chrome as a browser as Internet Explorer 8.0 may not be compatible.

NovaBACKUP® CMC Quick Start Guide

Introduction:

Welcome to the NovaBACKUP® CMC Quick Start Guide.

NovaBACKUP® CMC is composed of 2 components.

1. The Central Management Console (CMC) which can control up to 25 agents of any edition of NovaBACKUP® Professional, Server, or Business Essentials.
2. Your installations of NovaBACKUP® Business Essentials which are installed on your servers to backup critical data, such as SQL and Exchange databases, as well as virtual environments. This quick start guide will describe how to setup the Central Management Console (CMC) of NovaBACKUP® NAS, along with how to connect one installation of NovaBACKUP® Business Essentials (referred to as an agent) to the CMC. Subsequent installations of NovaBACKUP® Business Essentials to the CMC in the exact same manner. Additionally, any distributed installations of NovaBACKUP® Server, and Professional that you administer may also be connected to the CMC in the same manner.

CMC Installation

First step is the successful installation of the CMC. This is where all of the agents will check into and allow you to centrally manage your backups across multiple machines through a web browser. The CMC needs to be installed onto a machine that all of the other machines on which you install agents can talk to. Please check the requirements for the NovaBACKUP® Central Management Console for the minimum machine requirements for installation of the software.

The agents themselves connect to the CMC through port 4502 by default, though this is configurable. The built-in web server will use port 80, allowing you to connect to the web page and manage your backups. This may also be configured at the time of CMC installation.

The default choices for the installation of the CMC should be sufficient for most environments. The SQLite database can easily handle 25 agents, and if you do not already have IIS installed on the machine which the CMC will be installed—the built-in web server will work great.

For more detailed steps through the installation of the CMC please consult the CMC User Manual coming up next in this document.

Things to note for the installation of the CMC:

- Make sure the incoming and outgoing firewall default ports 80 and 4502 are correctly configured to allow for proper communication.
- During the installation of the CMC you will be asked for the Public Server Address of the management server (CMC). This needs to be an address or URL where all of the agents can reach the CMC.
- Before connecting agents to the CMC make sure you can login to it. There will be a shortcut in your Start Menu that opens a webpage with the CMC login. The default login user is "admin" and the default password is "admin"

Connecting to the Agent

Now that you have the CMC successfully installed it's time to connect an agent to it.

1. The first thing you need to do is install NovaBACKUP® Business Essentials (agent) on the machine you'd like to back up. (For instructions on how to do this please consult the NovaBACKUP® Quick Install Guide). By accepting all default options during installation, all necessary items will be installed.
2. Once NovaBACKUP® Business Essentials is installed we need to configure the connection to the CMC.
 - From within NovaBACKUP® open the Home tab
 - On the left hand side click on default settings under Settings
3. This will open a screen with a series of additional tabs. Click on the Management Server tab (screen shots available on our knowledge base.) Within this tab you will need to fill in the URL or IP address of the machine where you have installed the CMC along with the port number if you've changed it. The Default Group option on this screen will automatically place this agent into the group specified on the CMC. (In general you do not need to enter anything in the Default Group option at this point) Once you have filled out this information press Ok to save these changes. You can now exit NovaBACKUP®
4. Open up Windows Services. Once in the Services screen in Windows, find the Backup Client Agent Service. This is the service that actually connect to the CMC so you can manage your agent. By default this service is set to Manual, go to the properties of this service and set it to Automatic, and [Apply].
5. Finally, start the service. Click [START] and [OK]. You may now exit out of Windows Services. Now you have the CMC installed, an agent installed, and the agent connected to the CMC. You should now be able to login to the CMC and see the agent. From within the agent you are able to create a custom backup policy which includes all of your items selected for backup, with a personalized schedule. Additional agents may be connected using these steps.

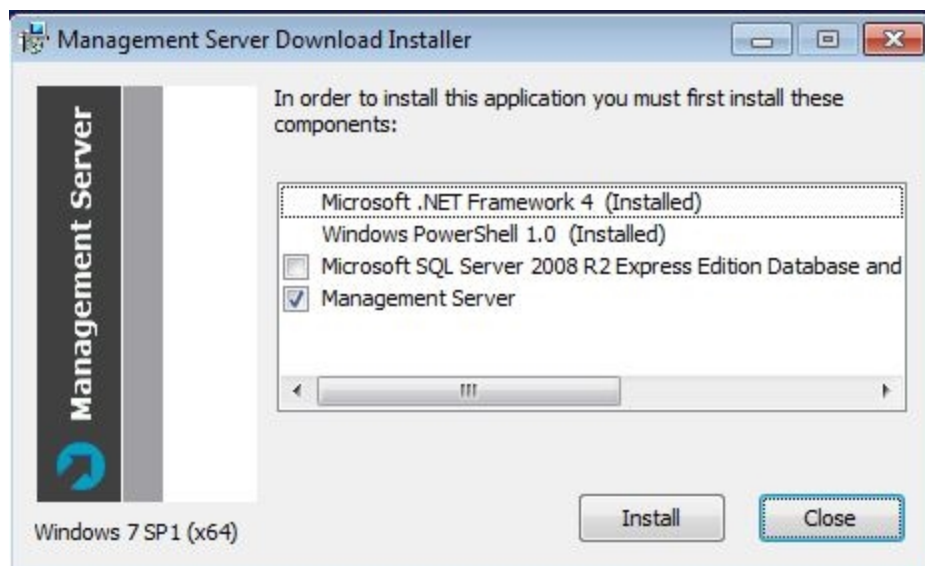
Thank you for choosing NovaBACKUP® CMC by NovaStor

Installing the Software

To start installation, click or run the installer executable to begin the installer wizard, the installer will let you know what things you are missing for the prerequisites to install the software. The Microsoft SQL Server 2008 is unchecked because the software is shipped with a SQLite database that is able to handle many agents, but the option to use the Microsoft SQL server 2008 is there if you decide to utilize it.

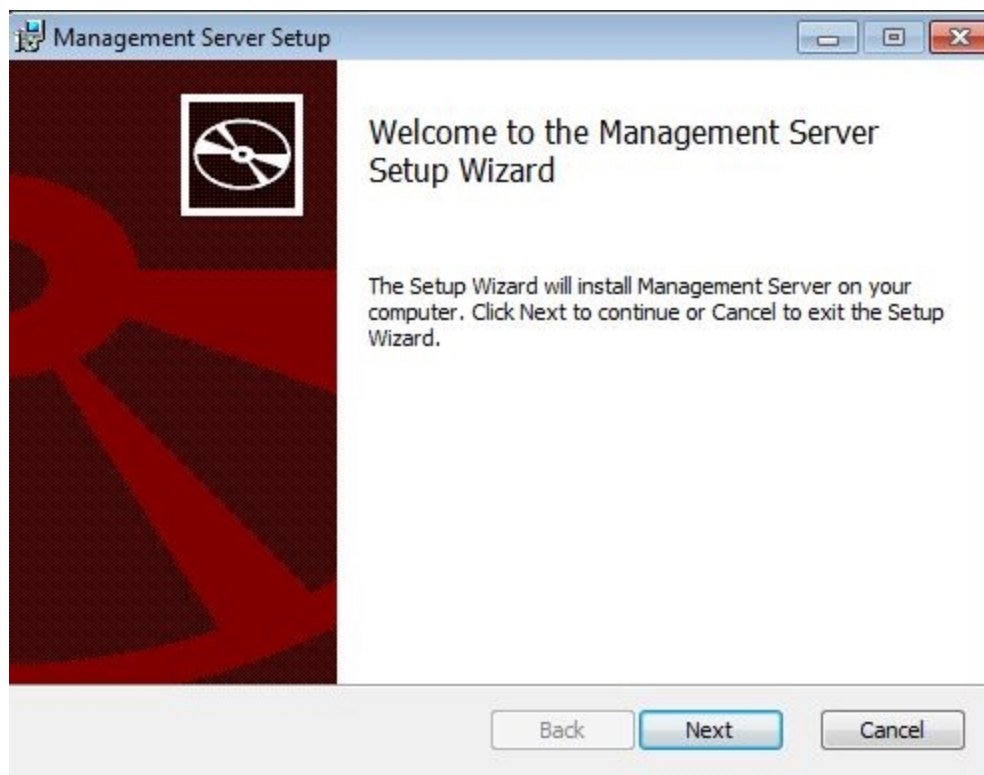
Step 1

Upon running the installer, the following screen comes up to ensure all prerequisite components are installed.



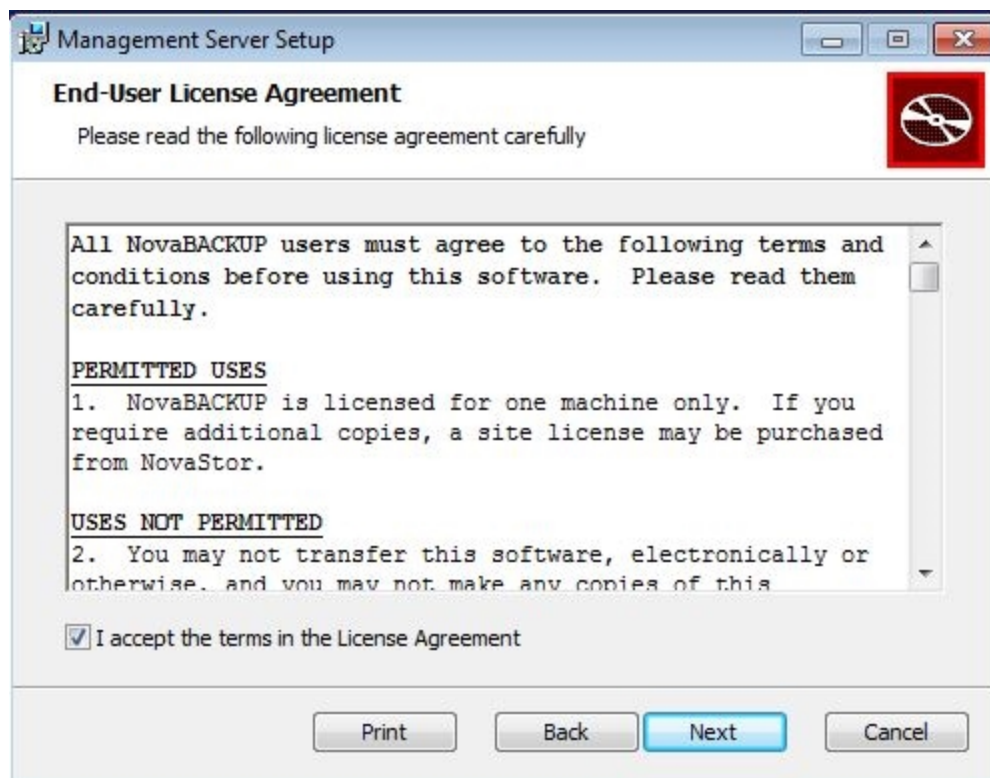
Step 2

After you have all the prerequisites installed, the following screen will come up



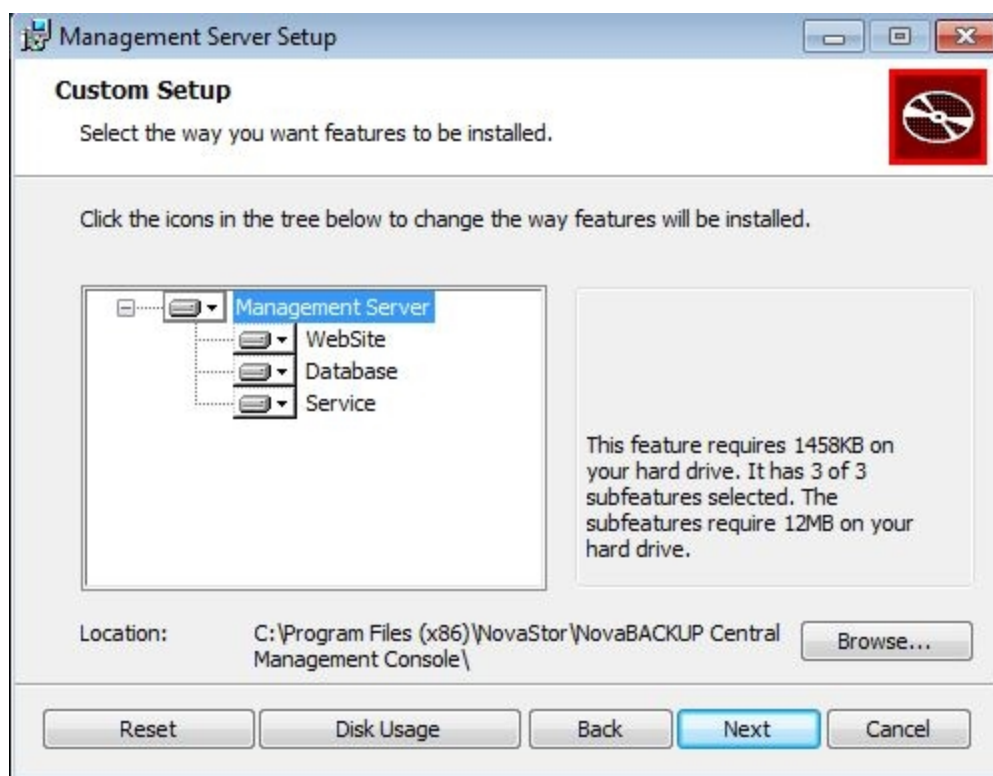
Clicking next on this screen will present you with the End-User License Agreement screen which needs to be accepted before continuing

Step 3



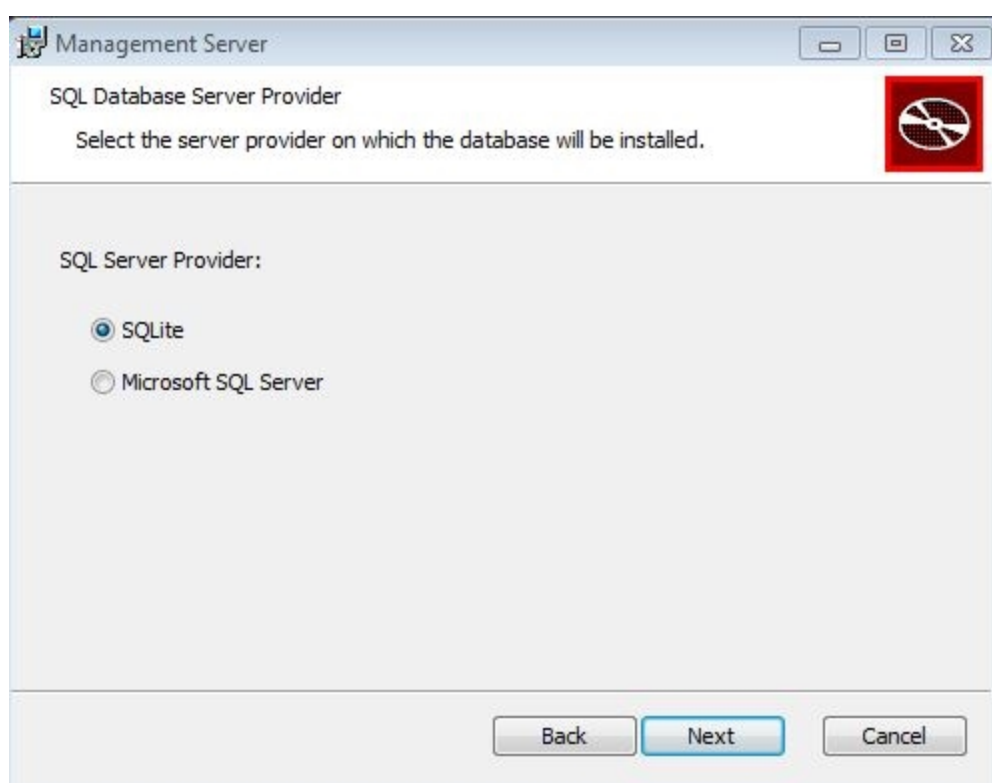
Step 4

After accepting the EULA the next screen shows what features will be installed, it is recommended to keep everything with the defaults here unless there is a specific reason you need to change them.



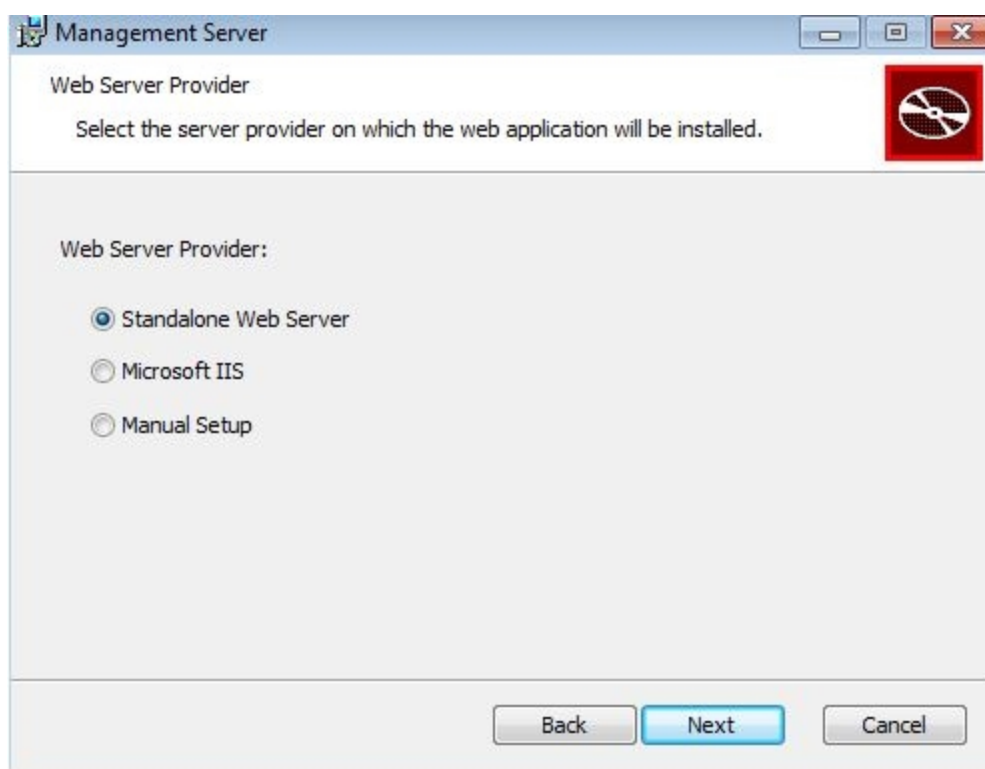
Step 5

The following screen allows you to choose whether or not you are going to use the built in SQLite database or utilize a Microsoft SQL Server. From internal testing, unless you have a larger installation of over 30 agents that you will be controlling the SQLite database works quite well.



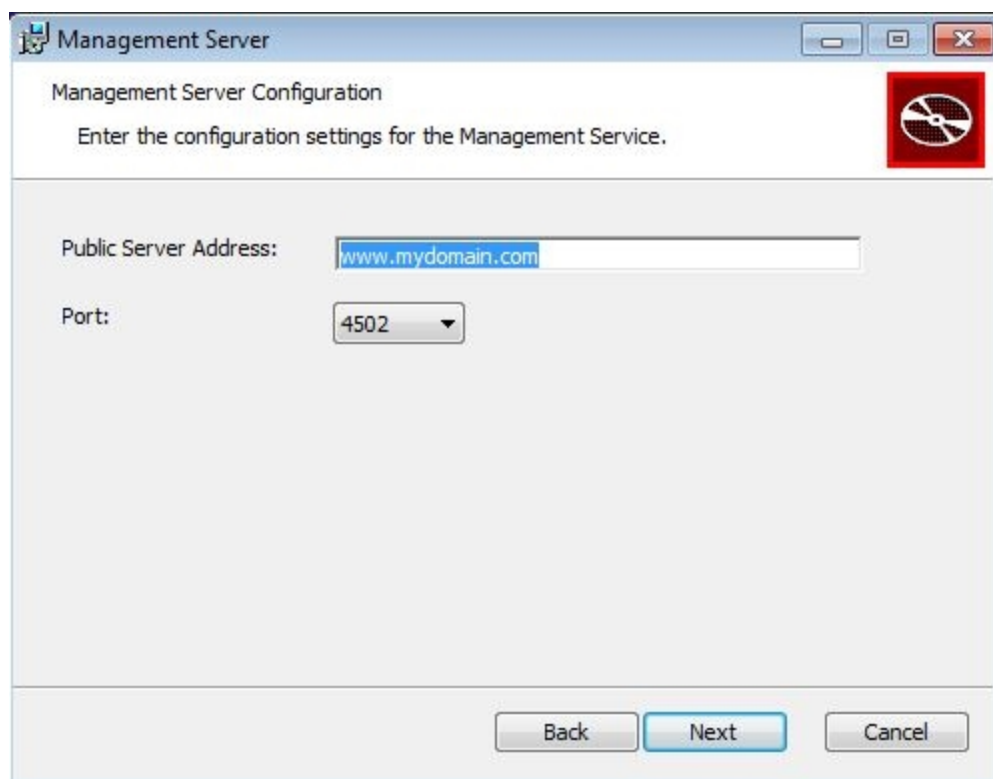
Step 6

Assuming you choose the SQLite database the next screen you will see is the screen that will ask you where you want to host the web application. If you do not already have IIS installed on your machine, we have found in testing that the standalone web server works very well. If you have IIS installed it is recommended that you use it, otherwise you will have a conflict of open ports.



Step 7

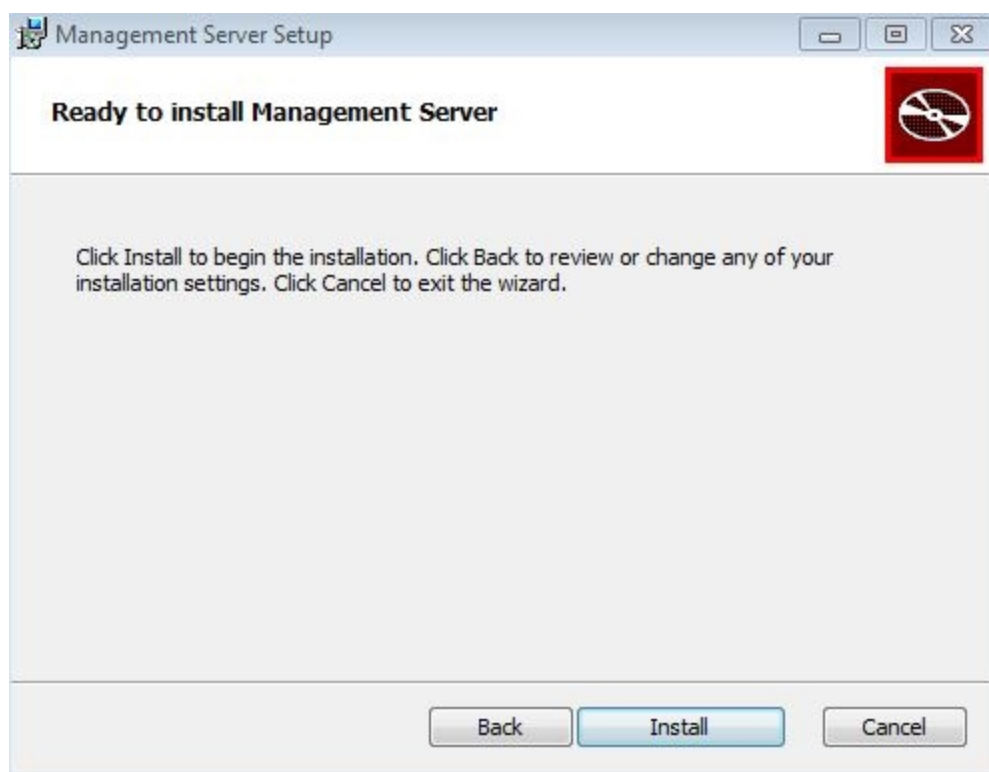
After choosing where you want the web application installed to it is time to configure the web application. The Public Server Address dialog box shown in this screen is the IP, DNS name, or computer name that the NovaBACKUP agents are going to be communicating with. The Port dropdown box contains the available ports that the NovaBACKUP agents can communicate to the CMC on. The computer that hosts the CMC needs to have the port that you choose open on it so the NovaBACKUP agents can communicate with the CMC. The agents themselves do not need to open any incoming ports, but they have to be configured to use the correct port. All agent communication is initiated from the agent so no incoming communication from the CMC is initiated so there should not be much to deal with firewalls on the NovaBACKUP agents.



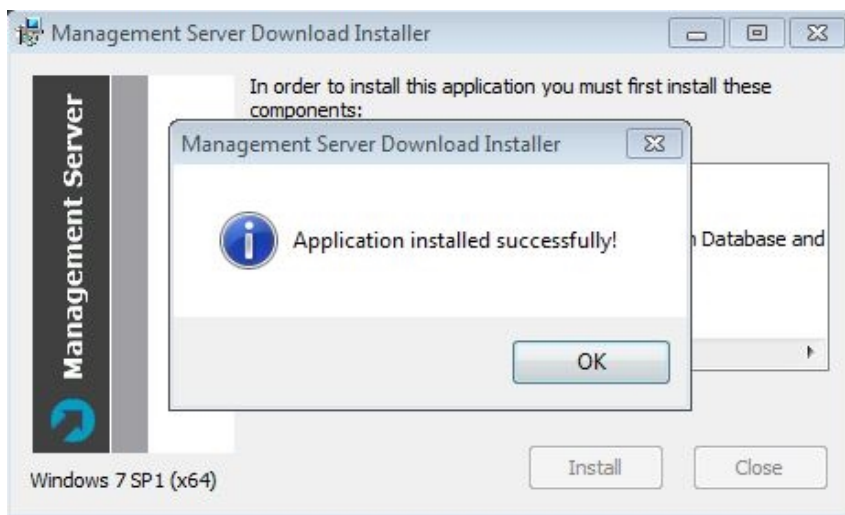
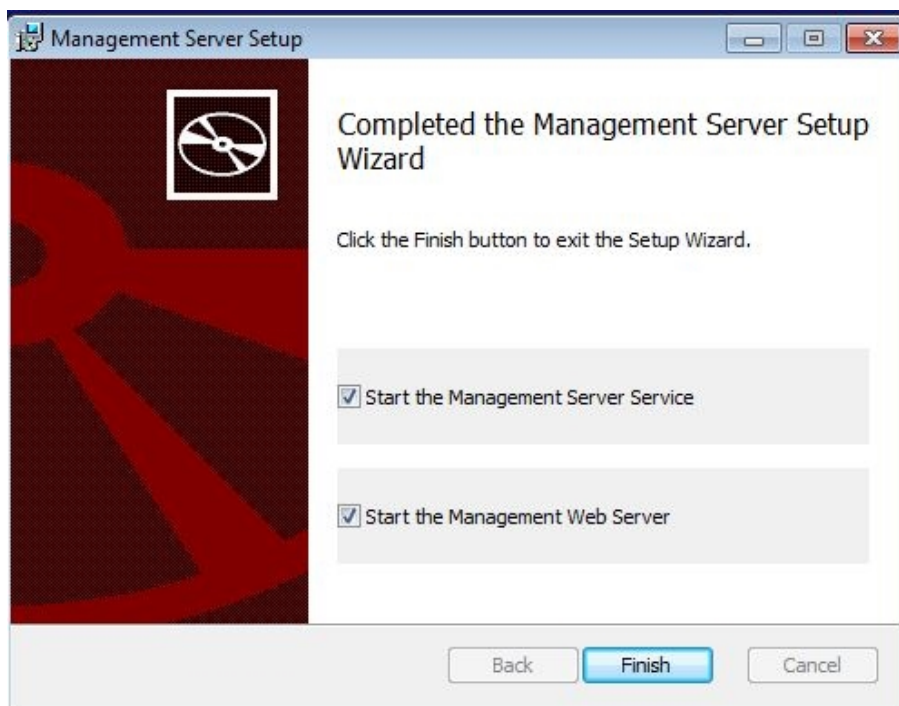
The image shows a Windows-style dialog box titled "Management Server". The subtitle is "Management Server Configuration". Below the subtitle, it says "Enter the configuration settings for the Management Service." There is a red square icon with a white circular arrow on the right side. The main area contains two fields: "Public Server Address:" with a text box containing "www.mydomain.com", and "Port:" with a dropdown menu showing "4502". At the bottom, there are three buttons: "Back", "Next", and "Cancel".

Step 8

At this point all the information needed to install the CMC has been gathered and the installer is ready to start installing it.



Step 9



At this point the NovaBACKUP Central Management Console is now installed

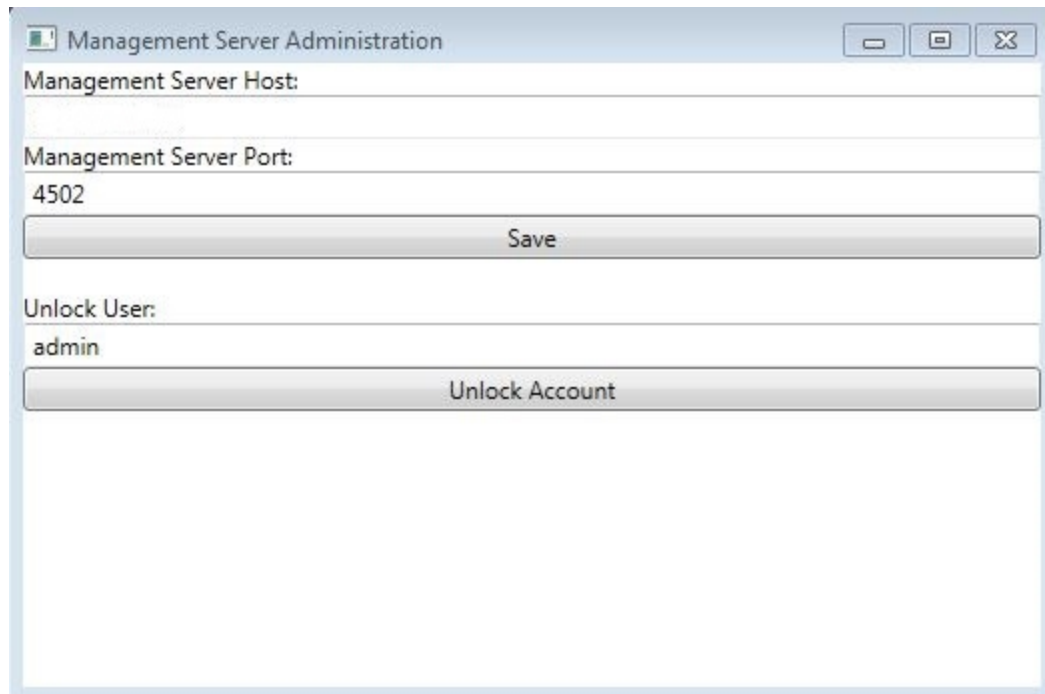
Server Administration Utility

The NovaBACKUP Central Management Console Server Administration utility is installed with the Management Service feature and a shortcut is created in the Start Menu group.

It is a desktop application so it must be run on the machine where the Management Service was installed.

This utility allows the server administration to perform the following tasks:

- Change the Management Server Host and Port as previously configured during the setup installation.
- Unlock a specific user account by username

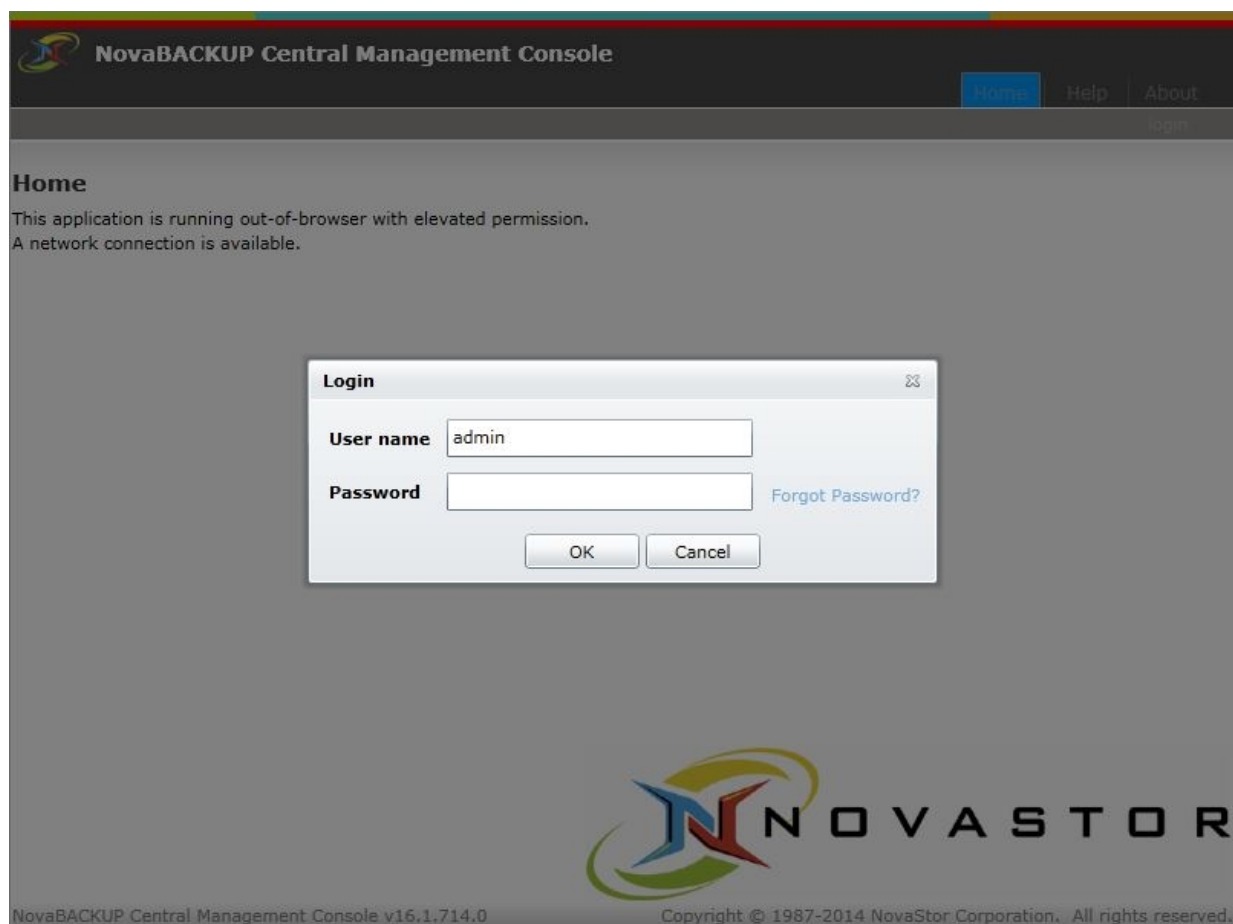


The screenshot shows a window titled "Management Server Administration" with standard Windows window controls (minimize, maximize, close). The window contains two main sections. The first section has a label "Management Server Host:" followed by a text input field containing "192.168.1.100". Below this is a label "Management Server Port:" followed by a text input field containing "4502". A "Save" button is positioned below these fields. The second section has a label "Unlock User:" followed by a text input field containing "admin". A "Unlock Account" button is positioned below this field. The window has a light blue border and a white background.

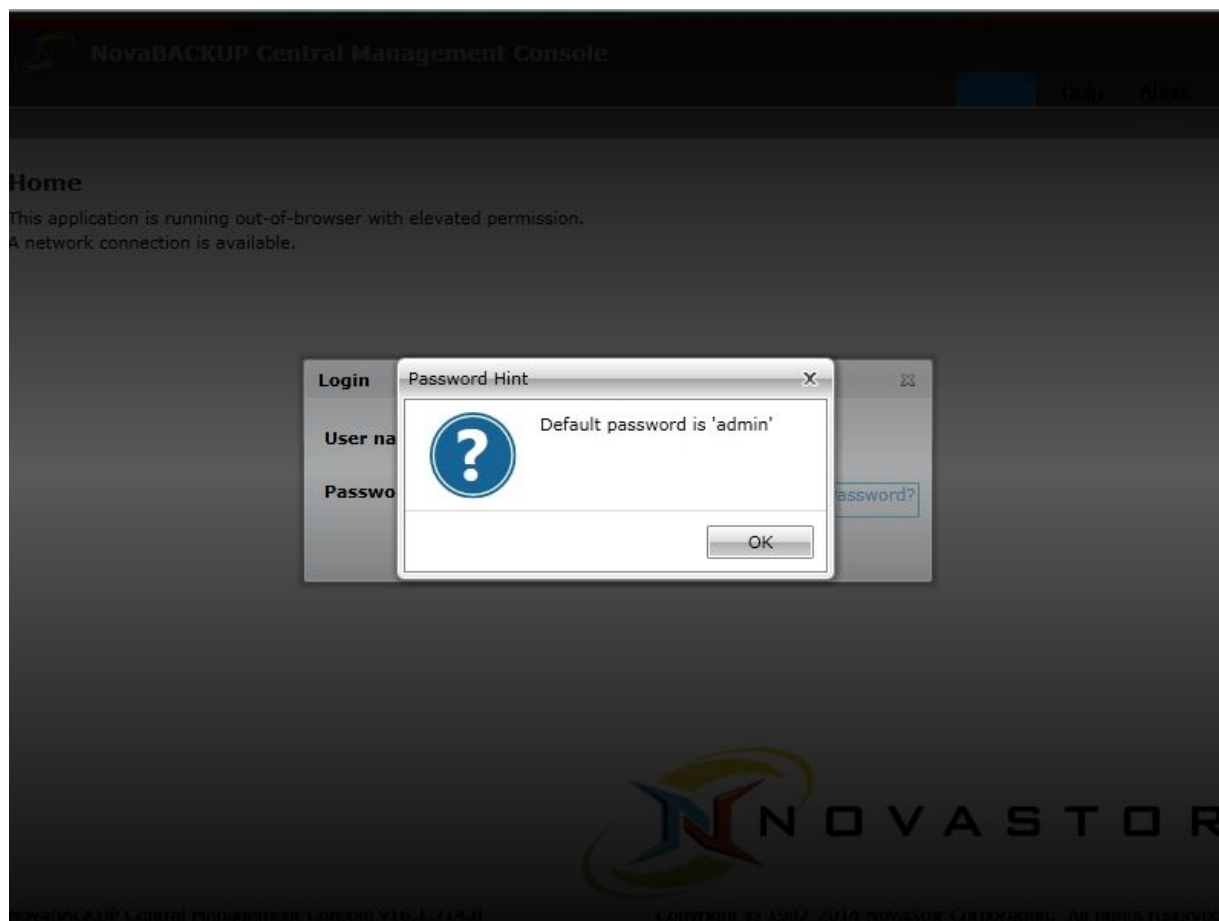
Accessing the Central Management Console

Logging In

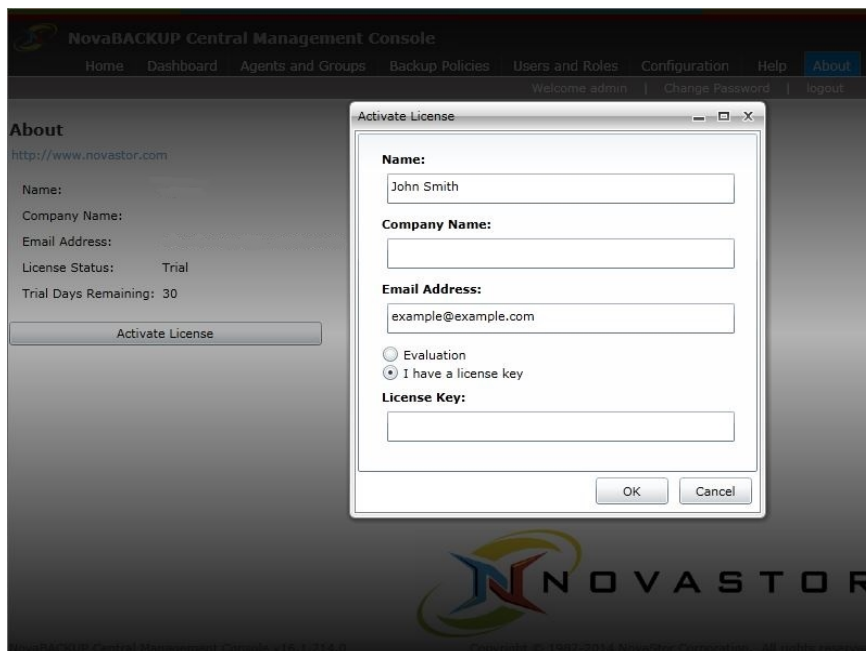
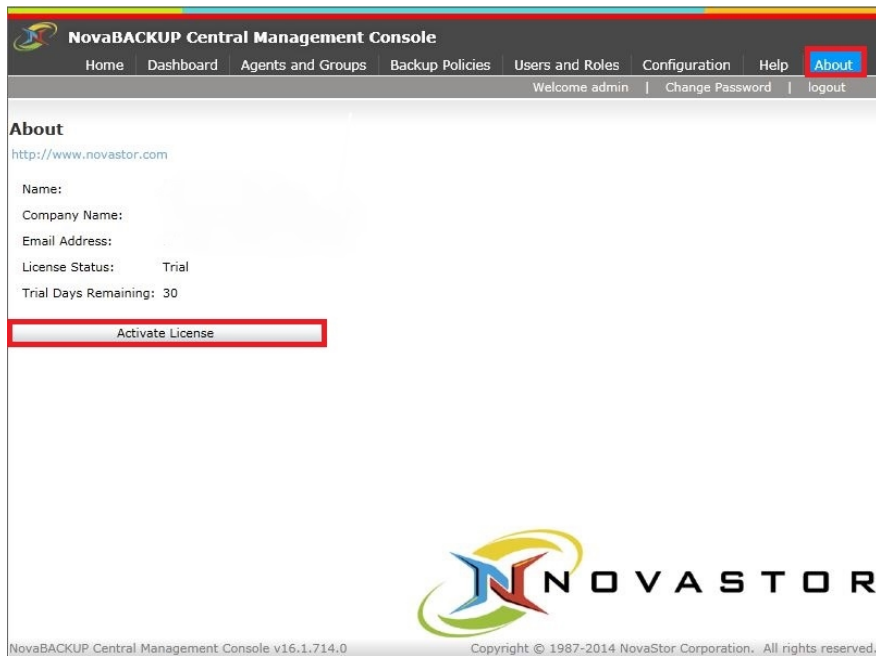
Logging into the CMC is as simple as opening a web browser that supports Silverlight, and browsing to the IP, DNS name, or computer name that you configured in the installation. A shortcut is installed in the Start Menu group for convenience. Once the Silverlight application has loaded, click on the login link in the upper right hand corner of the web application. If the login link is not there, this means that either the management service is not started or there is not a valid license in the CMC



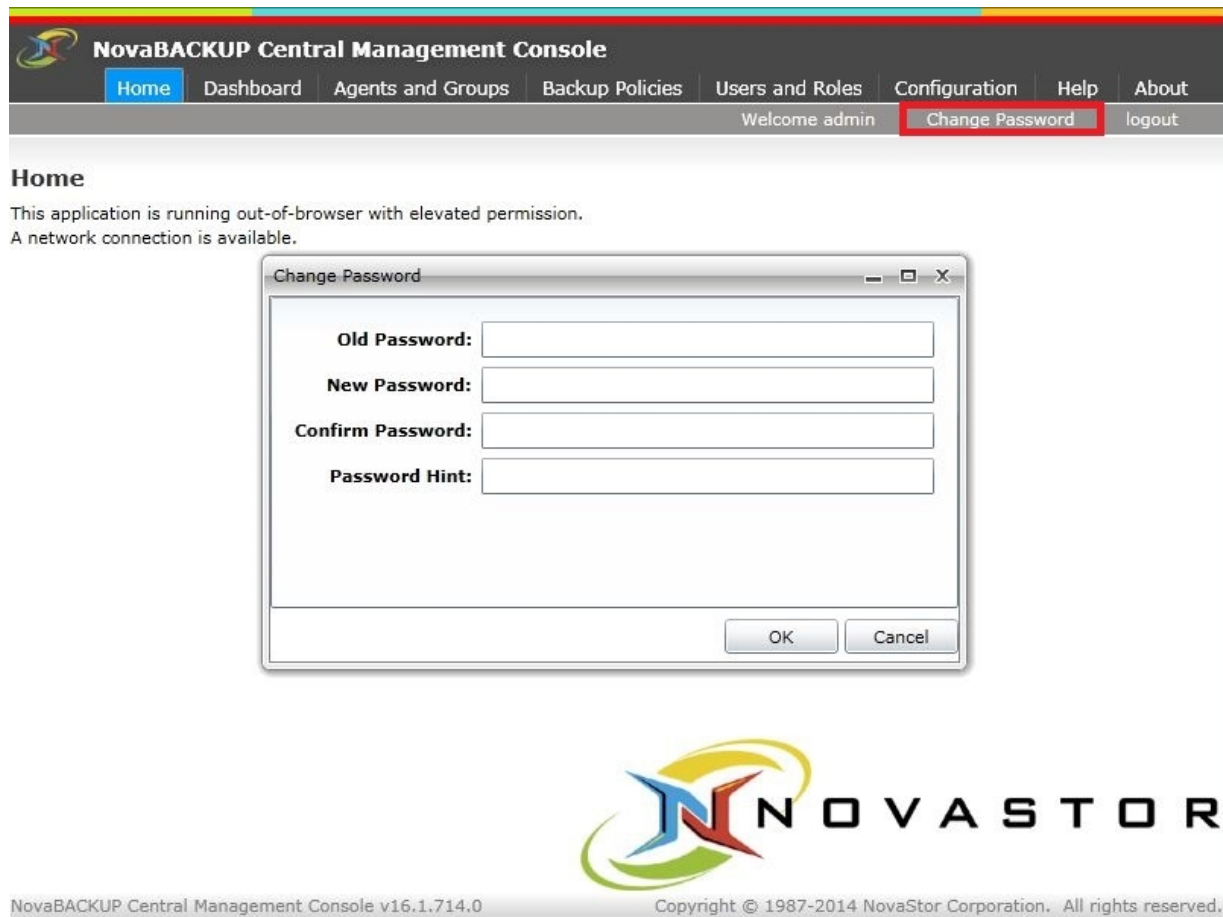
The default login username is **admin** with a password of **admin**, which you can also get if you click on the forgot password link.



Once logged in, it is recommended you put in your license in the About section of the Central Management Console.



The password and password hint can be changed by clicking on the Change Password link in the upper right hand corner of the web application.



The screenshot displays the NovaBACKUP Central Management Console interface. The top navigation bar includes links for Home, Dashboard, Agents and Groups, Backup Policies, Users and Roles, Configuration, Help, and About. A secondary bar shows 'Welcome admin' and a 'Change Password' link, which is highlighted with a red box. Below the navigation bar, the 'Home' section contains a message: 'This application is running out-of-browser with elevated permission. A network connection is available.' A 'Change Password' dialog box is open in the center, featuring four input fields: 'Old Password:', 'New Password:', 'Confirm Password:', and 'Password Hint:'. The dialog box has 'OK' and 'Cancel' buttons at the bottom right. The NovaStor logo is positioned in the lower right area of the console, and the footer contains the version 'NovaBACKUP Central Management Console v16.1.714.0' and the copyright notice 'Copyright © 1987-2014 NovaStor Corporation. All rights reserved.'

The Dashboard

The Dashboard gives an overview of what is and has happened, along with quick access to the latest logs. Notice that the log section of the dashboard allows you to change the number of items per page depending on your resolution.

NovaBACKUP Central Management Console

Home | Dashboard | Agents and Groups | Backup Policies | Users and Roles | Configuration | Help | About

Welcome admin | Change Password | logout

Current Status		Alerts	
Total Agents	1	Time period for alerts	30 days
Total Agents Online	1	Agents not seen in time period	0
Failed backups within the last 24 hours	0	Agents without backups in time period	0
Total backups completed in the last 24 hours	1	Agents with failed backups in time period	0
Total backups completed this month to date	1	Failed backups in time period	0

Backup job statuses in the past 30 days

Completed (Green circle)

Legend:

- Started (Blue square)
- Completed (Green square)
- Warning (Yellow square)
- Failed (Red square)
- Stopped (Grey square)

Group	Agent	Start Time	End Time	Type	Status
test2	AG-VDI-CLAY	7/15/2014 3:25:09 PM	7/15/2014 3:25:22 PM	Restore	Completed
test2	AG-VDI-CLAY	7/15/2014 3:23:35 PM	7/15/2014 3:24:32 PM	Backup	Completed

Failed backup jobs in the past 30 days

Page 1 of 1 | 8 items per page

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Getting Started with the Central Management Console

Users

Administrators can manage user accounts that can log into the Central Management Console. Each user must be associated with a Role that defines the permissions granted for the user and its associated groups. By default, only one user is added to the CMC with Administrator privileges.

Roles

A Role is a set of permissions that are granted to users which are members of that role. Administrators can manage roles and specify specific permissions for each role.

These are the roles added to the CMC by default:

- **Administrator** - has access to all functions and all groups
- **Backup Operator** - Can edit groups under them, edit agents under them, edit backup policies under them, start/stop backup jobs, create restore jobs, and view job history but can not edit roles or users. These functions only are available to the groups and agents that are under the group they are assigned to (they can be assigned to the 'root' group and have these privileges for everything)
- **Backup Support** - Can edit backup policies under them, start/stop backup jobs, create restore jobs, and view job history, but can not edit groups, agents, roles, or users. These functions are only available to the groups and agents that are under the group they are assigned to (they can be assigned to the 'root' group and have these privileges for everything)
- **Backup Auditor** - Has no edit or create privileges, but can view job history, backup policies, agents, and groups. These functions only are available to the groups and agents that are under the group they are assigned to (they can be assigned to the 'root' group and have these privileges for everything)

Permissions

Each role describes a set of permissions:

- Access All Groups
- View Agents and Groups
- Edit Agents
- Edit Groups
- View Users
- Edit Users
- View Roles
- Edit Roles
- View Alerts
- Edit Alerts
- View Reports
- Edit Reports
- View Dashboard
- Edit Dashboard
- View Backup Jobs
- Edit Backup Jobs
- View Job History
- View Backup Logs
- View Settings
- Edit Settings
- Start Backup Jobs
- Create Restore Jobs
- Stop Jobs

The following groups of permissions share a relationship:

1. View Users, View Roles
2. Edit Users, View Roles
3. Edit Users, Edit Groups
4. Edit Agents, Edit Backup Jobs
5. View Backup Jobs, Start Backup Jobs, Stop Jobs

Configuring the Central Management Console

Adding an Agent

After you have entered in your license it is time to start configuring the CMC. It is suggested you start by going to the Agents tab of the CMC.

The screenshot displays the NovaBACKUP Central Management Console (CMC) interface. The top navigation bar includes links for Home, Dashboard, Agents and Groups (selected), Backup Policies, Users and Roles, Configuration, Help, and About. Below the navigation bar, a welcome message for 'admin' is shown, along with links for Change Password and Logout. The main content area is a table listing agents and groups. The table has columns for Hierarchy, Description, Connected, Last Activity Date, Last Backu, Last Backup Date, xSP Username, and Last Note. The table contains three rows: 'Pending' (Machines not assigned to groups), 'Test' (test), and 'test2' (sdsdf). The 'test2' row is highlighted in orange. Below the table, there is a section for 'AG-VDI-CLAY' with two green circular status indicators and two timestamps: '7/16/2014 9:34:18 AM' and '7/15/2014 3:23:35 PM'. At the bottom of the interface, there is an 'Add Group' button and a footer with the text 'NovaBACKUP Central Management Console v16.1.714.0' and 'Copyright © 1987-2014 NovaStor Corporation. All rights reserved.'

Hierarchy	Description	Connected	Last Activity Date	Last Backu	Last Backup Date	xSP Username	Last Note
Pending	Machines not assigned to groups						Edit Delete
Test	test						Edit Delete
test2	sdsdf						Edit Delete

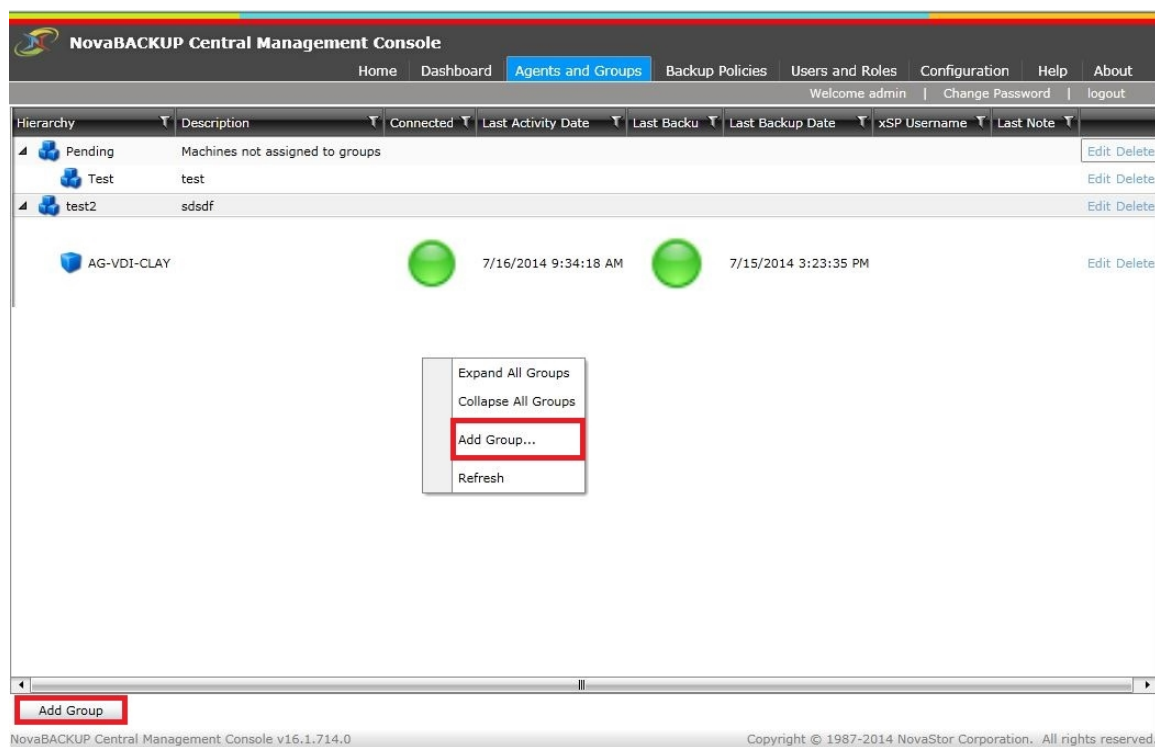
AG-VDI-CLAY

7/16/2014 9:34:18 AM 7/15/2014 3:23:35 PM

Add Group

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You can add groups and subgroups by either clicking the add group or right clicking in an empty row.



Subgroups and agents inherit the backup policies that are defined in their parent group, but there is the ability to edit the inherited backup policy.

Agents

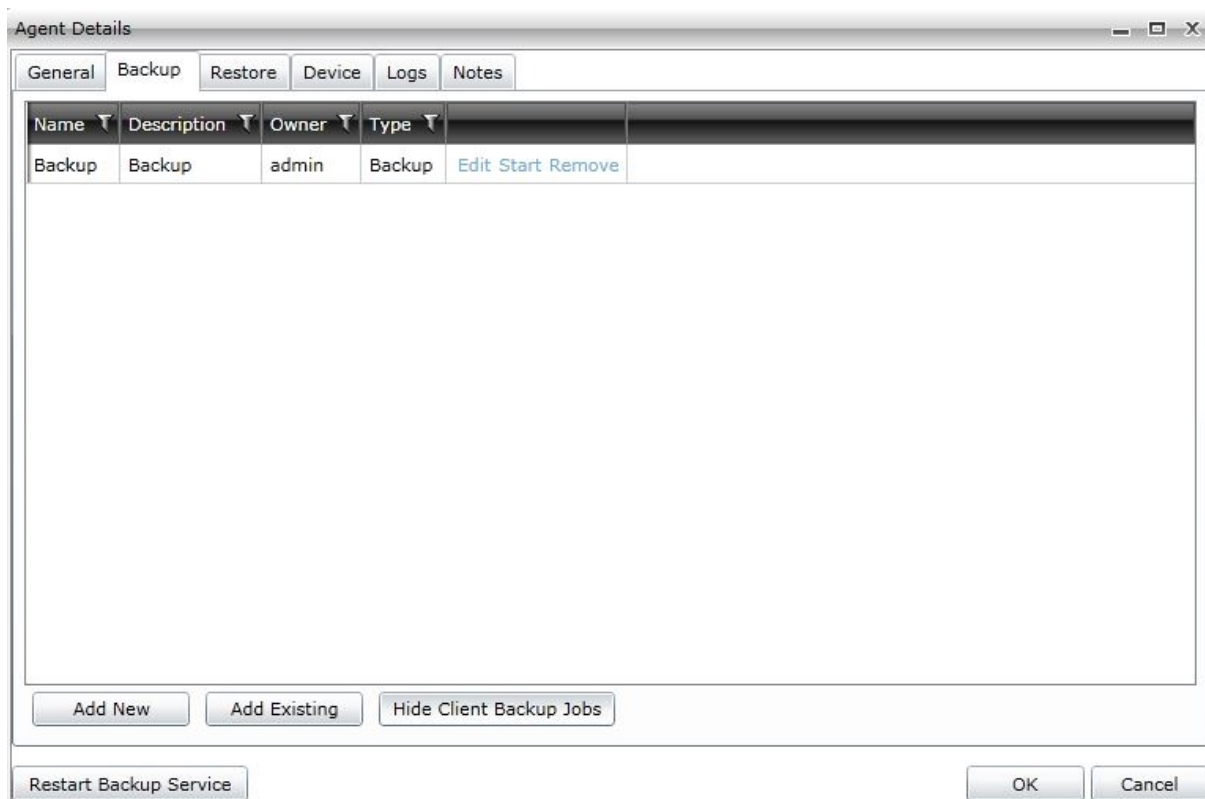
What are referred to in the CMC as agents are really computers that have NovaBACKUP installed on them which are pointed to the CMC for management. The general tab of the properties of an agent will give a unique identifier along with the computer name. The name of the agent is configurable. The group that the agent belongs to is also configurable. When a new agent connects to the CMC the agent is put into the Pending group automatically.

The screenshot shows the 'Agent Details' dialog box with the 'General' tab selected. The dialog contains the following fields and controls:

- Friendly Name:** AG-VDI-CLAY
- Group:** test2 (dropdown menu)
- Connected:** ☒
- Devices are read-only:** ☐
- Machine name:** AG-VDI-CLAY
- Unique id:** e3d47074-3285-4903-bbe7-e9ef88934937
- IP Address:** (empty field)
- OS Version:** Windows 8 Enterprise (x64)
- Client Type:** NovaStor NovaBACKUP
- Client Version:** 16.1.711.0
- License Type:** NovaBACKUP Business Essentials
- License:** (empty field)

At the bottom of the dialog, there is a 'Restart Backup Service' button on the left, and 'OK' and 'Cancel' buttons on the right.

The Backup tab shows what backup policies are applied to the agent, including all agent specific backup policies and group level backup policies. Just like on the group level the ability to add new backup policies or add existing backup policies is available in this view. Group level backup policies cannot be deleted but they can be edited, but agent specific backup policies can be removed. The ability to start a backup or stop a currently running backup is also available in this view. The start or stop option is only available if the agent is online.



The device tab will show all the devices that were reported to CMC the last time the agent was online. Press the "Refresh" button while an agent is online to get the latest list of devices. If an agent is configured to allow CMC to configure its devices, click on the "Add Device" button to configure xSP or Network devices on the agent.

Agent Details

General

Backup

Restore

Device

Logs

Notes

Name	Type	Total Si	Free S	File Sy	S			Last Updated	Created
C:\	System	119.66 GB	72.48 GB	NTFS				7/15/2014 3:12:49 PM	7/15/2014
D:\NECVMWar VMware IDE CDR10	System			Unknown				7/15/2014 3:12:49 PM	7/15/2014
E:\	System	32 GB	31.89 GB	NTFS				7/15/2014 3:12:49 PM	7/15/2014
Network	System							7/15/2014 3:12:50 PM	7/15/2014

Refresh

Add Device

Restart Backup Service

OK

Cancel

The log tab will always be available no matter if the agent is online or not. The logs themselves that are available in this view are stored in the database. The log file limit is 30 MB, so in certain extreme cases a full detailed log will not be available here if you have the logging set to detailed logging. You are able to either double click on the log entry or press the view button to open a log.

Agent Details

GeneralBackupRestoreDeviceLogsNotes

1

Page 1 of 1

Type	Start Date Time	End Date Time	Status		
Backup	7/16/2014 10:29:00 AM		Started	View	Delete
Restore	7/15/2014 3:25:09 PM	7/15/2014 3:25:22 PM	Completed	View	Delete
Backup	7/15/2014 3:23:35 PM	7/15/2014 3:24:32 PM	Completed	View	Delete

1

Page 1 of 1

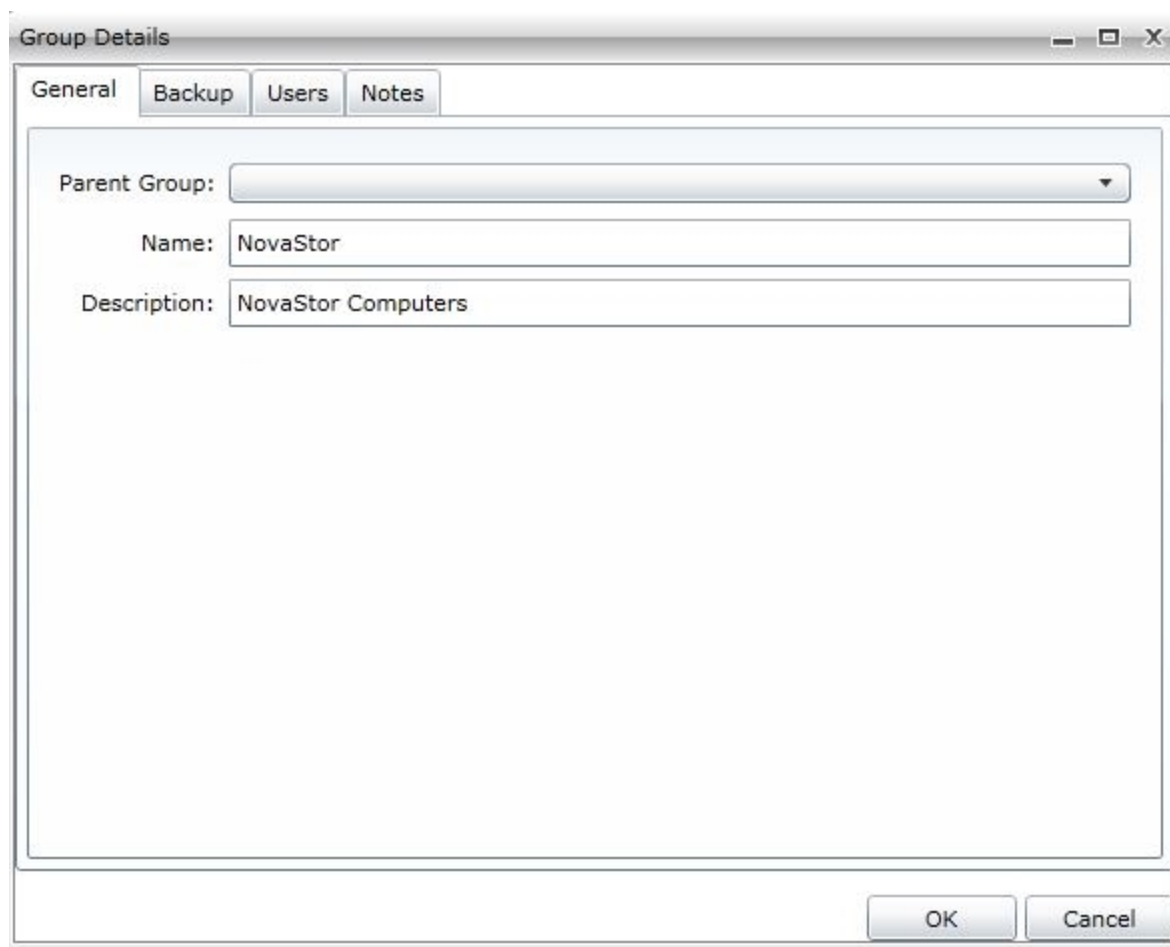
Restart Backup Service

OK

Cancel

Groups

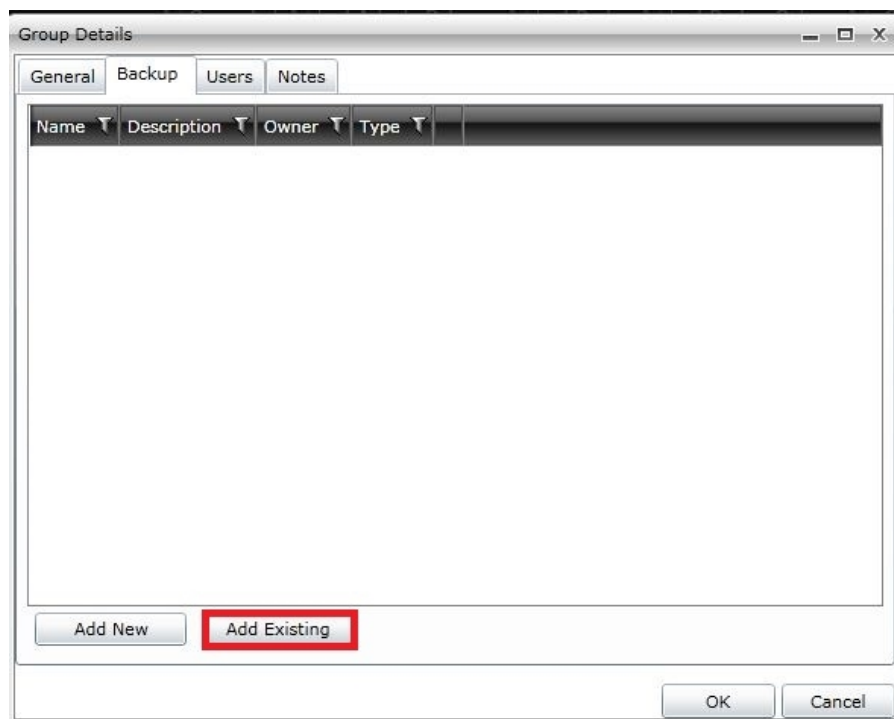
When defining a group you can define the parent group and the name of the group along with a description.

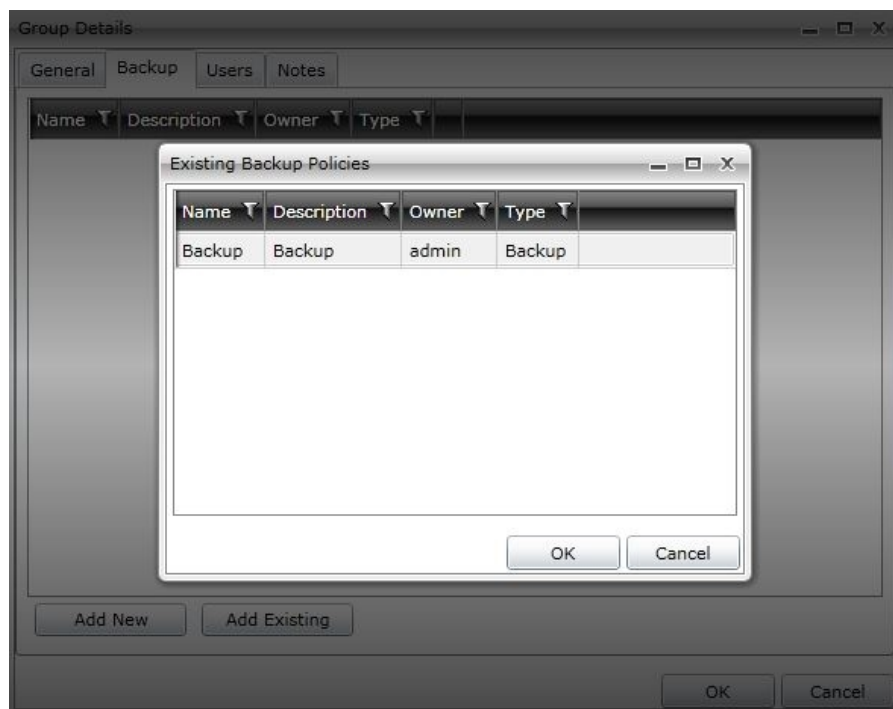


The image shows a 'Group Details' dialog box with a title bar containing standard window controls. Below the title bar are four tabs: 'General', 'Backup', 'Users', and 'Notes'. The 'General' tab is selected. Inside the dialog, there are three input fields: 'Parent Group:' with a dropdown arrow, 'Name:' with the text 'NovaStor', and 'Description:' with the text 'NovaStor Computers'. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

Field	Value
Parent Group:	[Dropdown]
Name:	NovaStor
Description:	NovaStor Computers

The Backup tab in the group properties is where you can either add an existing backup policy or create a new backup policy for the group.





When changing a backup policy that has been applied to a group and the group has agents underneath it there is the possibility that edits may have been done to the group backup policy that are on certain agents. That is why when you finish editing your group backup policy there is a choice to just finish and not overwrite any backup policies that are on agents that have been edited and the other option is to overwrite the changes that may have been done on the agent level.

Update Backup Wizard

Schedule

Type of schedule

☒ No schedule
 ☐ One Time
 ☐ Minute
 ☐ Hourly
 ☐ Daily
 ☐ Weekly
 ☐ Monthly

To proceed, click Finish or select Finish and Overwrite

< Previous

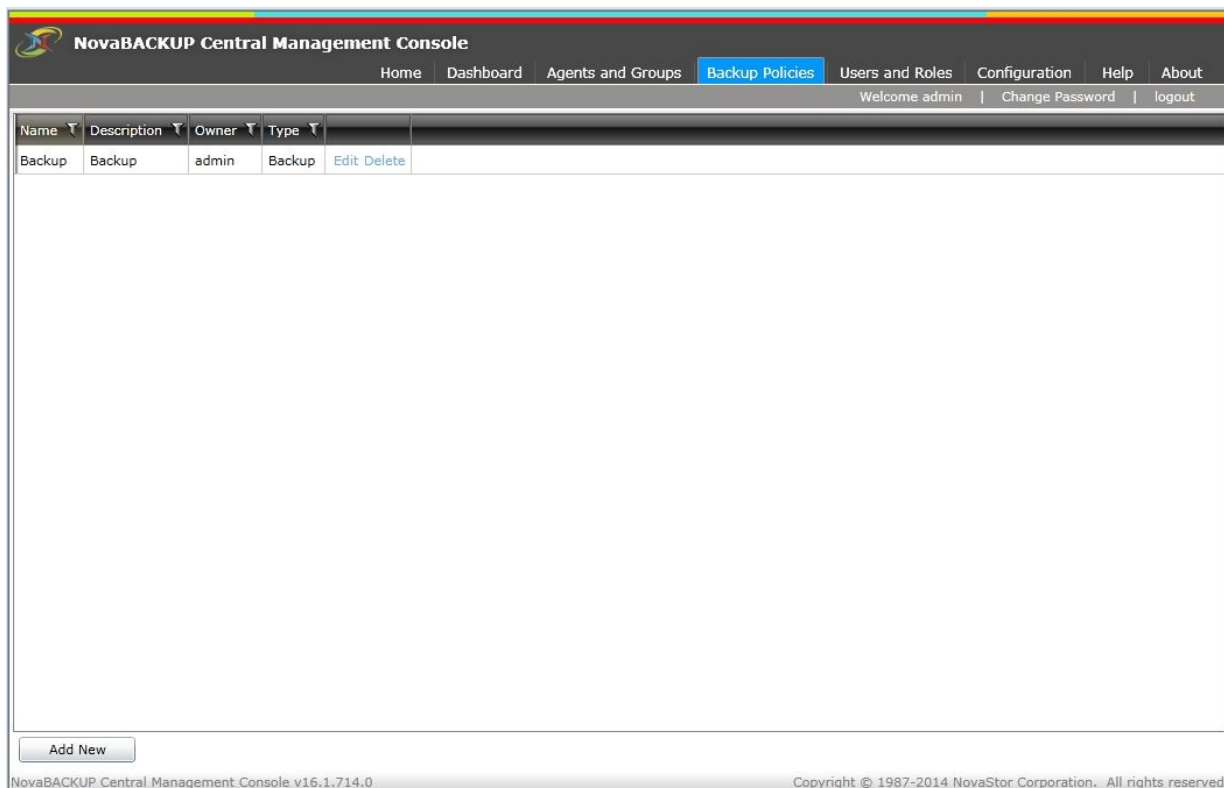
Finish

Finish
 Finish and Overwrite

 Cancel

Getting Started With Backups

Backup policies in the Central Management Console are where backup jobs and schedules are defined. A backup job is tied to a schedule and all the settings that go along with it. They can either be applied to a group or on a specific agent.



The screenshot displays the NovaBACKUP Central Management Console interface. The top navigation bar includes links for Home, Dashboard, Agents and Groups, Backup Policies (which is the active tab), Users and Roles, Configuration, Help, and About. Below the navigation bar, a user status bar shows "Welcome admin" with links for Change Password and Logout. The main content area features a table with the following columns: Name, Description, Owner, Type, and a set of action links (Edit, Delete). The table contains one entry: "Backup" with a description of "Backup", owner "admin", and type "Backup". Below the table, there is an "Add New" button. The footer of the console displays the version "NovaBACKUP Central Management Console v16.1.714.0" and the copyright notice "Copyright © 1987-2014 NovaStor Corporation. All rights reserved."

Name	Description	Owner	Type	
Backup	Backup	admin	Backup	Edit Delete

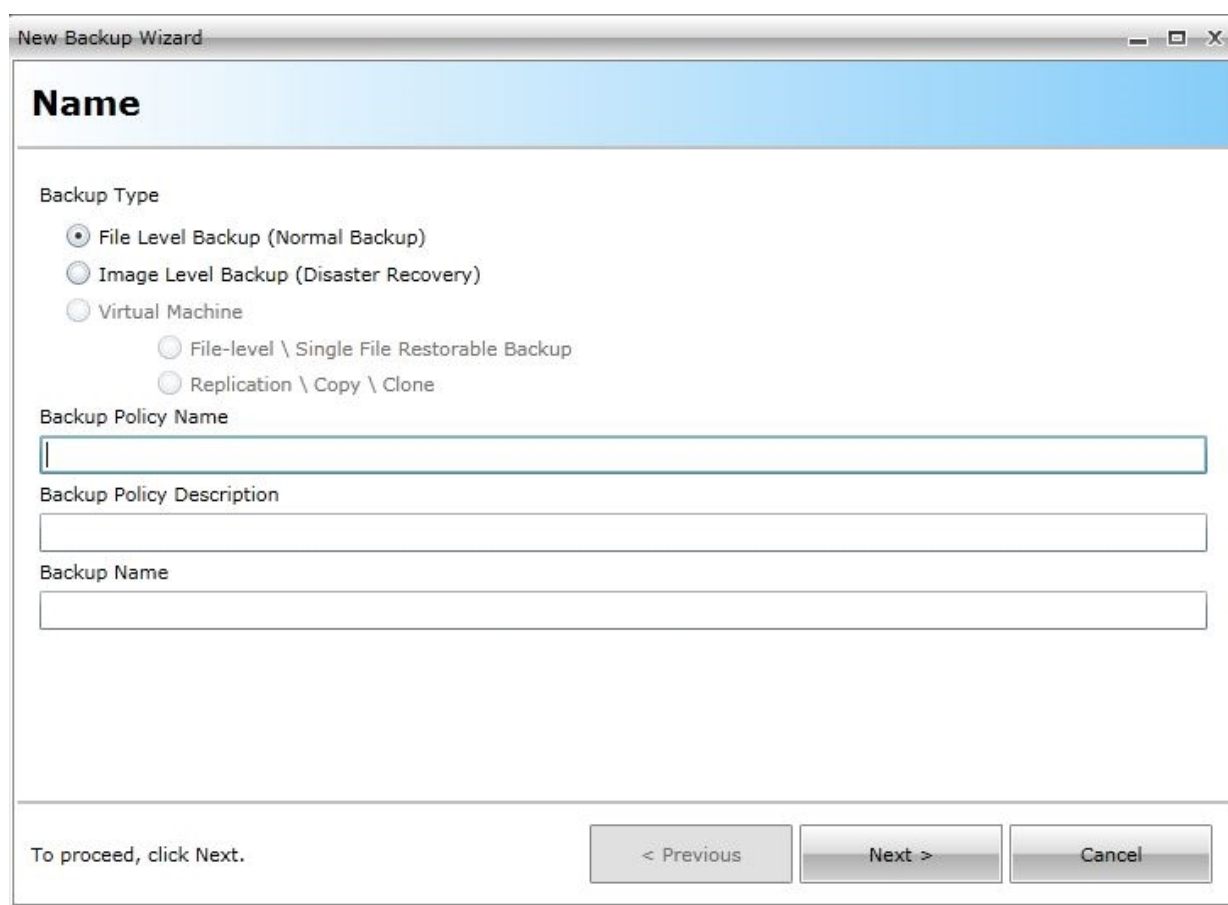
[Add New](#)

NovaBACKUP Central Management Console v16.1.714.0 Copyright © 1987-2014 NovaStor Corporation. All rights reserved.

Configuring Backup Policies

Naming the Backup Policy

The first step to configuring a backup policy is to name the policy, this is the policy name that will be seen in the backup tab in the agent level, group level, and the backup policy tab. The Backup Name is the name that will be used in logs and for the backup media session.



The image shows a 'New Backup Wizard' dialog box with a light blue header bar containing the title 'Name'. Below the header, the 'Backup Type' section has three radio buttons: 'File Level Backup (Normal Backup)' (selected), 'Image Level Backup (Disaster Recovery)', and 'Virtual Machine'. Under 'Virtual Machine', there are two sub-options: 'File-level \ Single File Restorable Backup' and 'Replication \ Copy \ Clone'. Below these are three text input fields: 'Backup Policy Name', 'Backup Policy Description', and 'Backup Name'. At the bottom, there is a message 'To proceed, click Next.' and three buttons: '< Previous', 'Next >', and 'Cancel'.

Selecting Files to be Backed up

The next step to create a backup policy is to choose what to backup. This can include a custom selection or manually selecting files or plug-ins directly from the client.

New Backup Wizard

Source

☒ Global Custom Selection

<input checked="" type="radio"/>	Documents	All Word, Excel, PowerPoint, Text and PDF Documents on the C drive	View Delete	
<input type="radio"/>	Music	All Music Files on the C drive	View Delete	
<input checked="" type="radio"/>	Videos	All Video Files on the C drive	View Delete	
<input type="radio"/>	Photos	All Bitmap Images, Pictures, and Photo Files on the C drive	View Delete	
<input type="radio"/>	Email	All Outlook Email Files on the C drive	View Delete	
<input type="radio"/>	C:	All files on the C drive	View Delete	

Add

☐ Let me select items manually

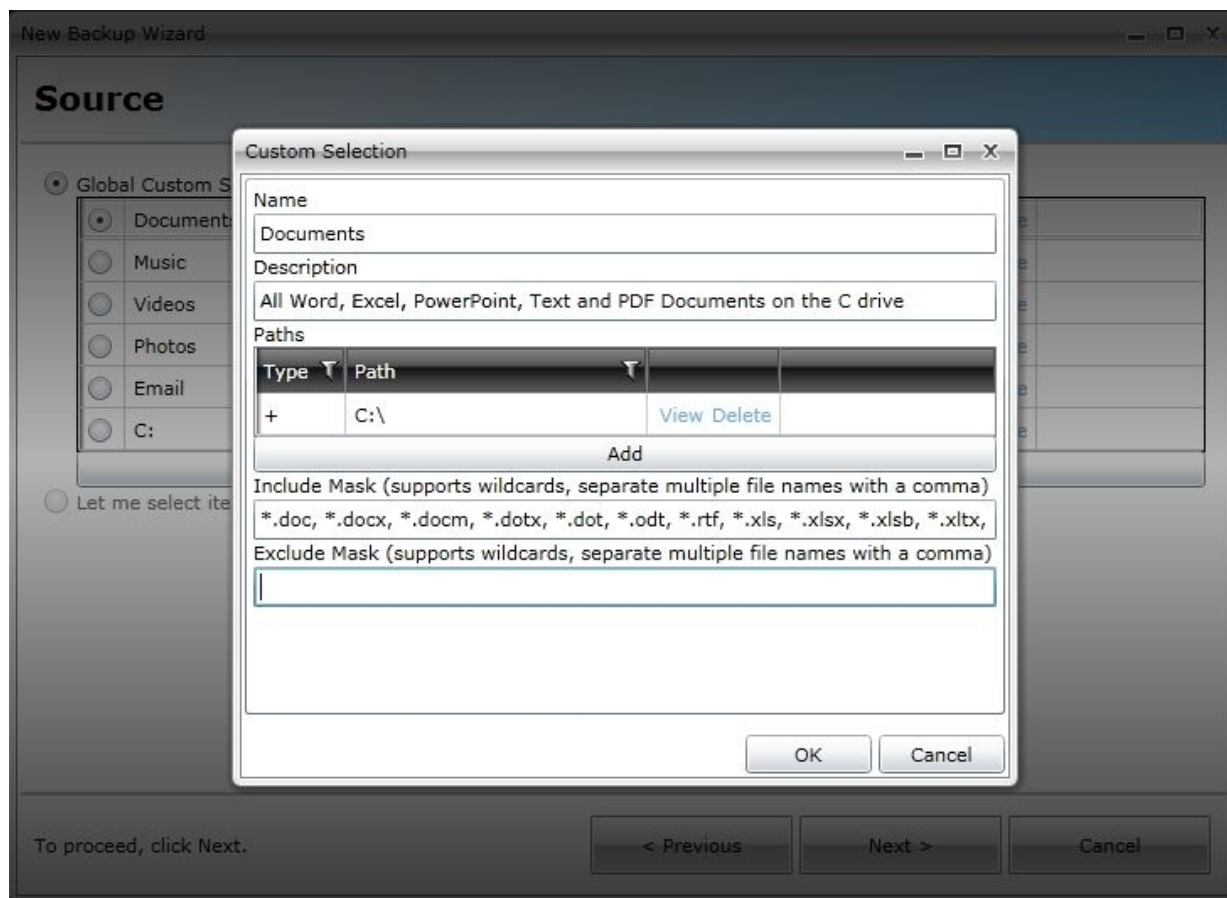
To proceed, click Next.

< Previous

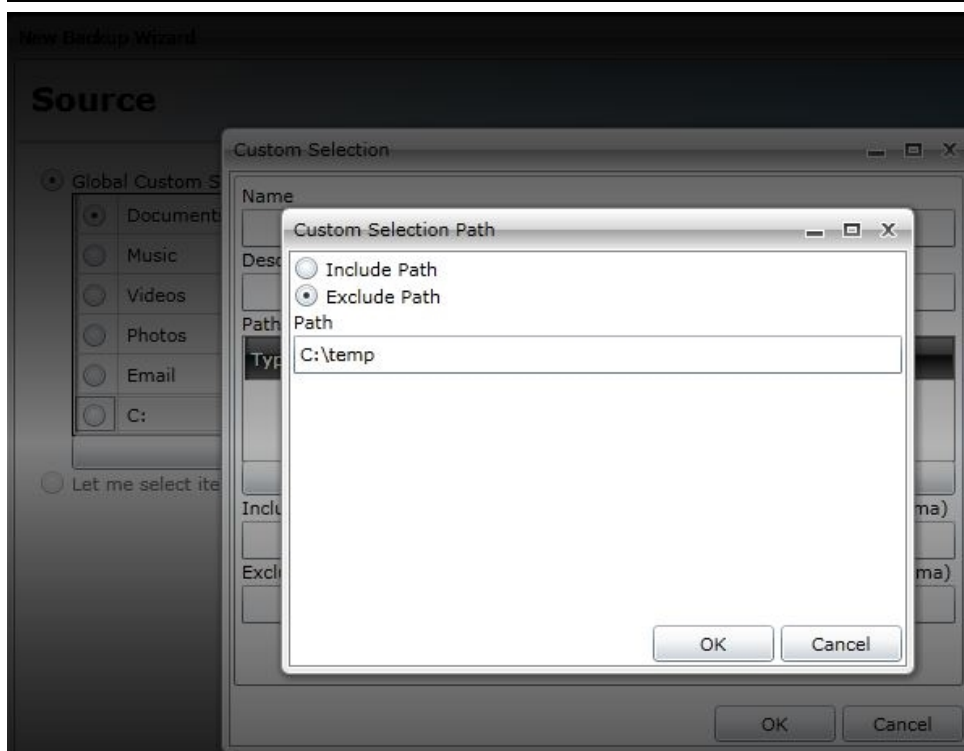
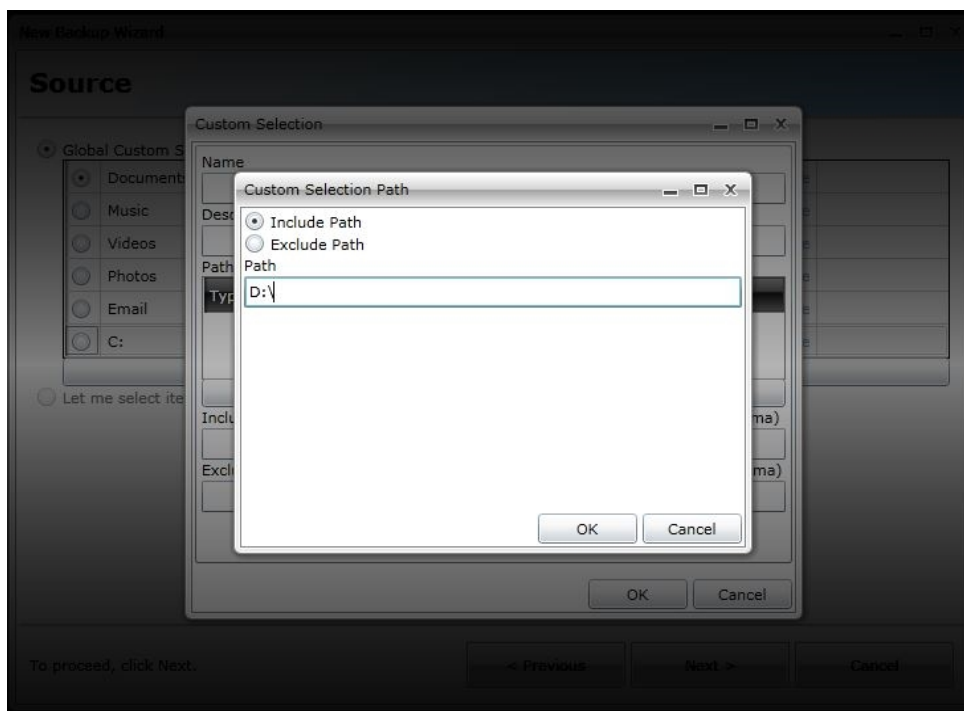
Next >

Cancel

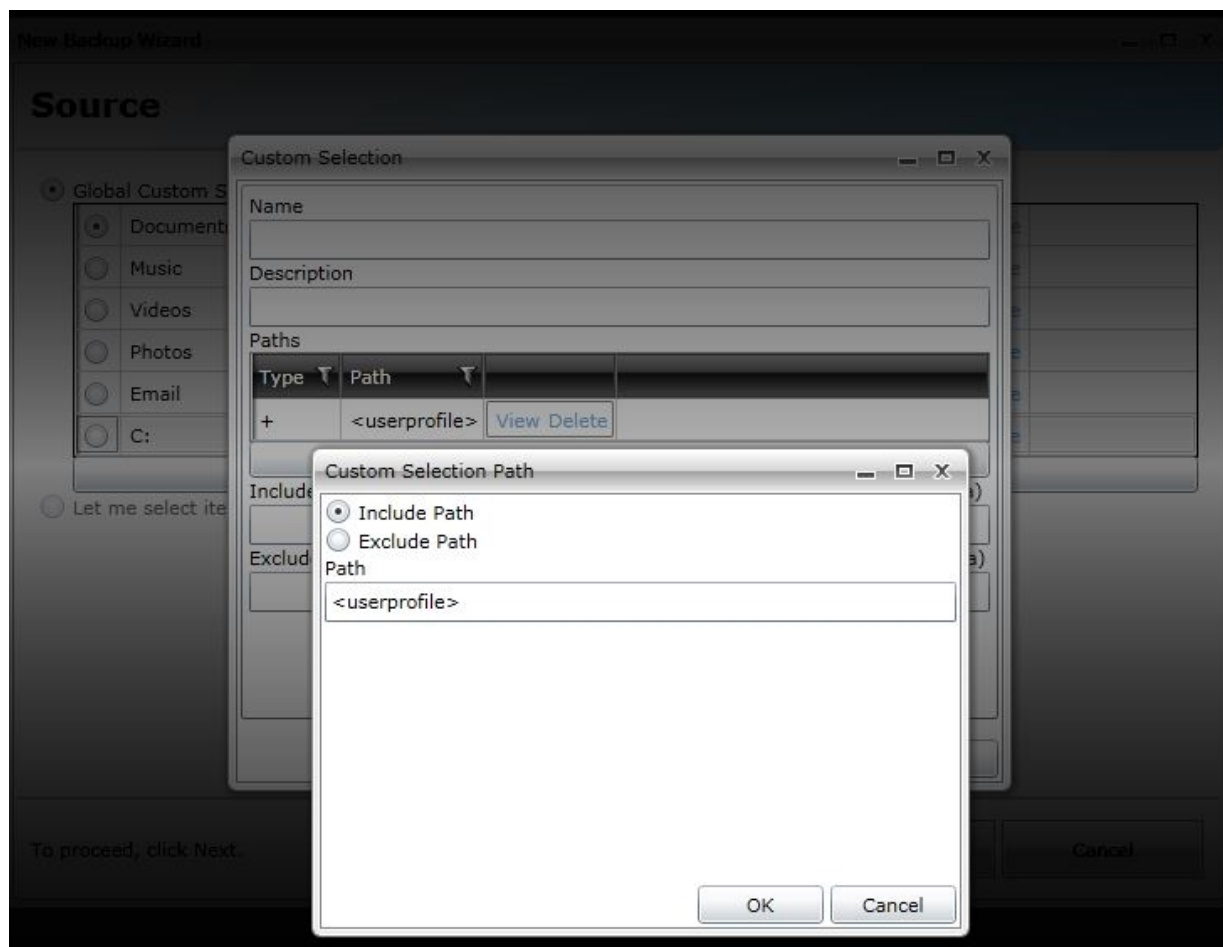
Global Custom Selections are global across the entire CMC, so if one of them is edited and another agent or group is using that custom selection in their backup policy that backup policy will use the newly edited custom selection.



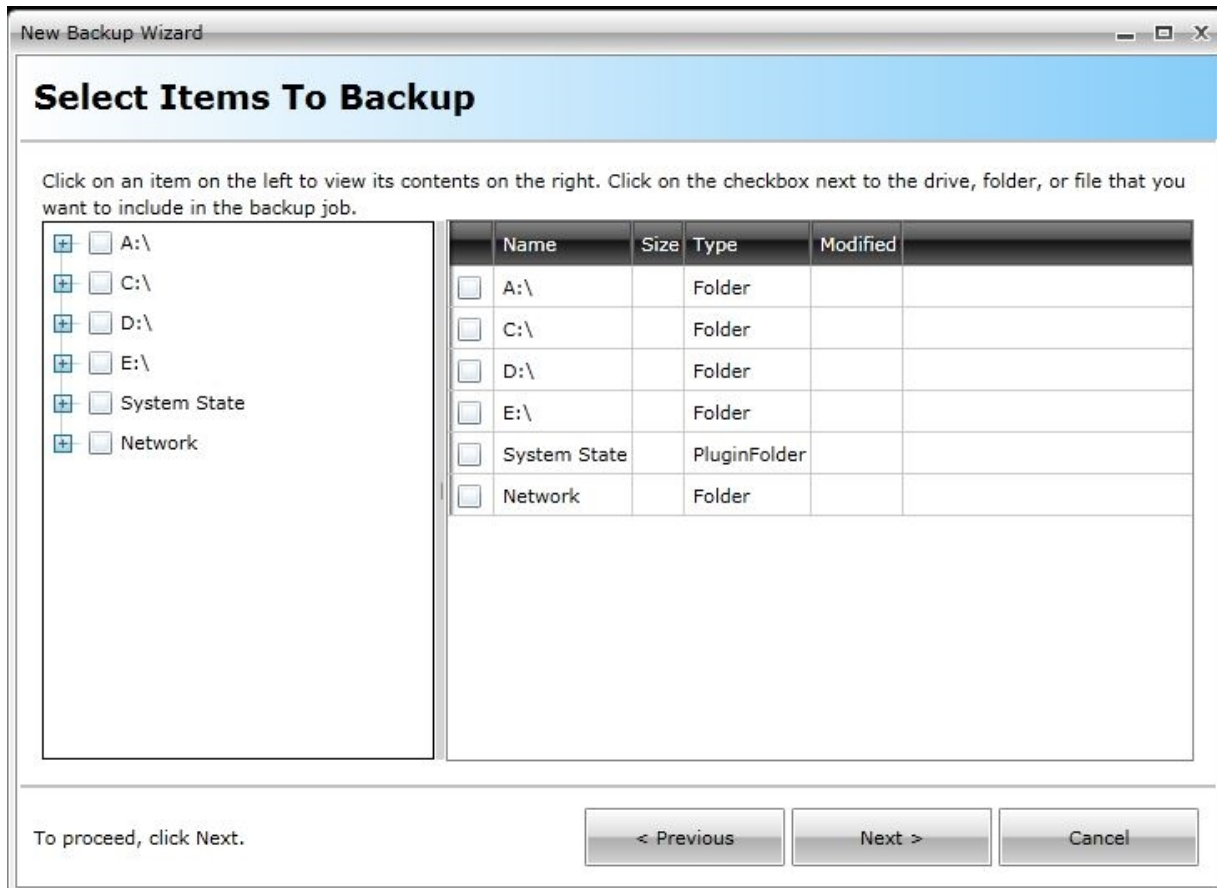
The ability to customize the custom selection includes any file masks and what folders to include or exclude.



The custom selections can also include Windows environment variables put in the form of <env variable> such as the example below using the environment variable <userprofile>.



The other option that is available, if and only if you are creating a backup policy for a specific user, is to manually select the files that are needed to be backed up. This can include System State, Exchange, SQL, or VMware plugins along with normal files.



New Backup Wizard

Select Items To Backup

Click on an item on the left to view its contents on the right. Click on the checkbox next to the drive, folder, or file that you want to include in the backup job.

- ☒ A:\
- ☒ C:\
- ☒ D:\
- ☒ E:\
- ☒ System State
- ☒ Network

Name	Size	Type	Modified
<input type="checkbox"/> A:\		Folder	
<input type="checkbox"/> C:\		Folder	
<input type="checkbox"/> D:\		Folder	
<input type="checkbox"/> E:\		Folder	
<input type="checkbox"/> System State		PluginFolder	
<input type="checkbox"/> Network		Folder	

To proceed, click Next.

< Previous
Next >
Cancel

Selecting a Destination for the Backup

After the backup selections have been made it is time to tell the backup policy where to back up the selections to.

The screenshot shows a window titled "New Backup Wizard" with a light blue header bar containing the word "Destination". Below the header, there is a section labeled "Backup Destination" with a text input field and a "Backup to..." button. Below this is a section labeled "Media name:" with a larger text input field. At the bottom of the window, there is a footer area with the text "To proceed, click Next." and three buttons: "< Previous", "Next >", and "Cancel".

New Backup Wizard

Destination

Backup Destination

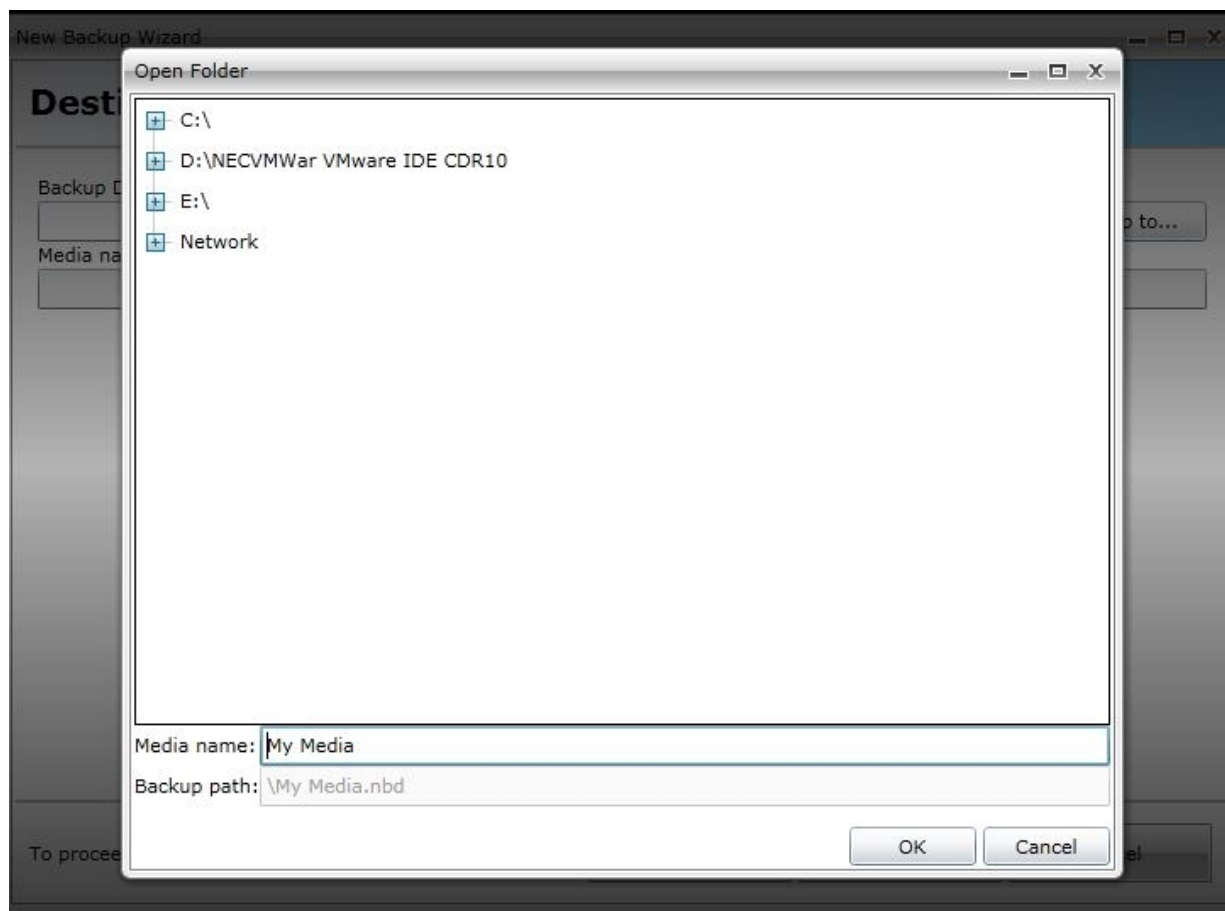
Backup to...

Media name:

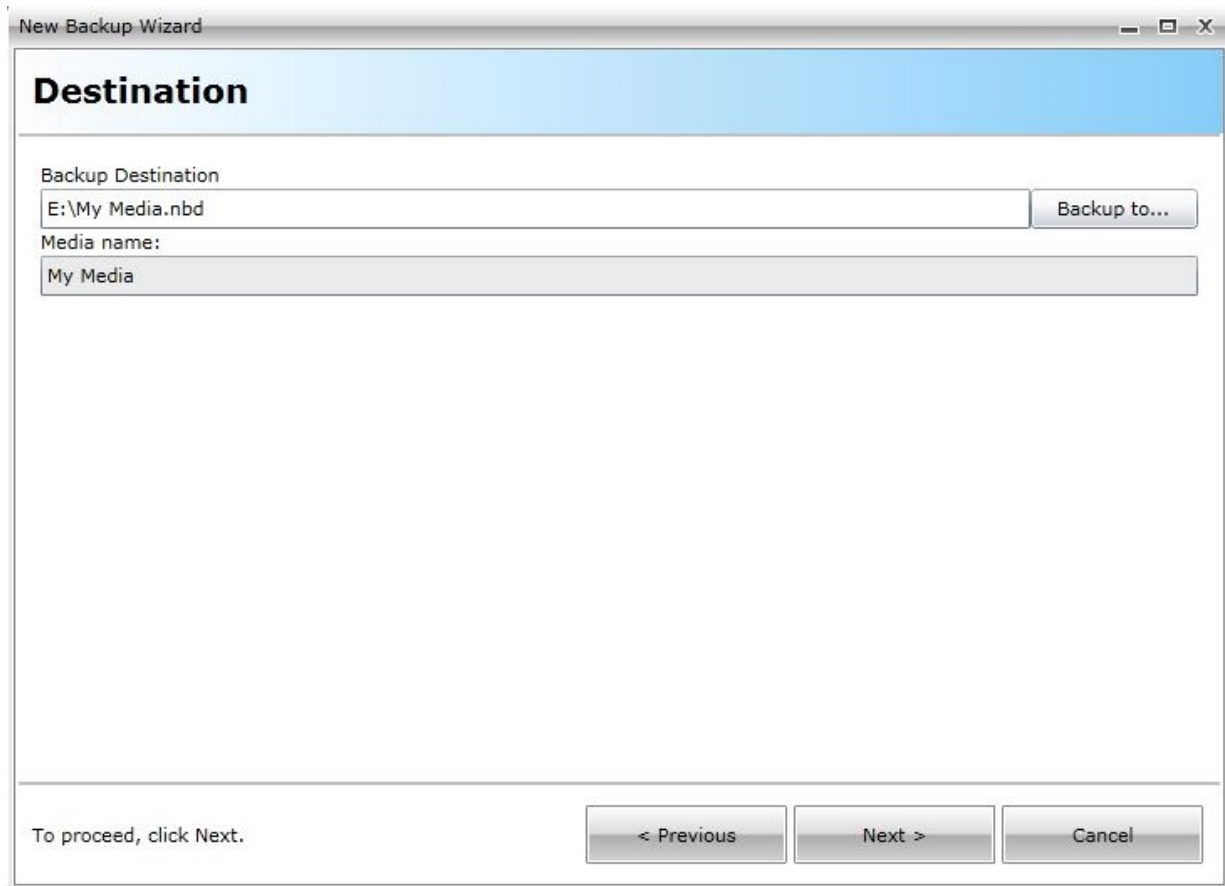
To proceed, click Next.

< Previous Next > Cancel

The 'Backup to...' button will query the agent as to what is available to backup to on that specific agent.



There is always the choice to manually type in where the backups should go too, below is what the destination path should look like to a hard disk, optical media, flash drive, usb drive, or really any other locally attached device that is not a tape drive



New Backup Wizard

Destination

Backup Destination

E:\My Media.nbd Backup to...

Media name:

My Media

To proceed, click Next.

< Previous Next > Cancel

Below is what the destination should look like for a tape device:

The screenshot shows a window titled "New Backup Wizard" with a blue header bar containing the word "Destination". Below the header, there is a section labeled "Backup Destination" with a text input field containing "Tape ID 0 [bus 3]: QUANTUM DAT DAT160-000\tapebackup.nbd" and a "Backup to..." button. Below this is a "Media name:" label and a text input field containing "tapebackup". At the bottom of the window, there is a message "To proceed, click Next." and three buttons: "< Previous", "Next >", and "Cancel".

New Backup Wizard

Destination

Backup Destination

Tape ID 0 [bus 3]: QUANTUM DAT DAT160-000\tapebackup.nbd Backup to...

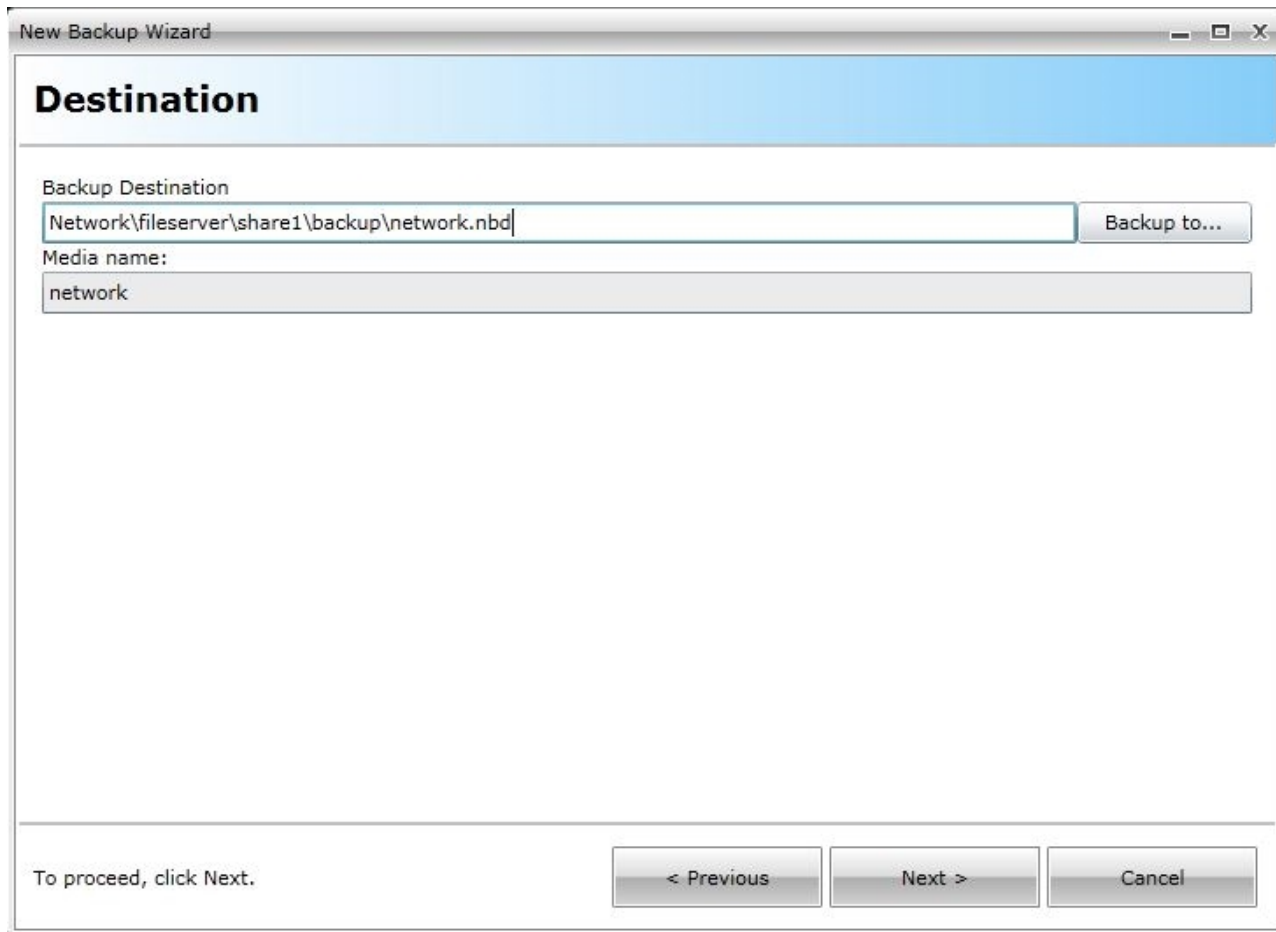
Media name:

tapebackup

To proceed, click Next.

< Previous Next > Cancel

Network devices such as a NAS device or Windows share need to look like the following:



New Backup Wizard

Destination

Backup Destination

Network\\fileservr\\share1\\backup\\network.nbd Backup to...

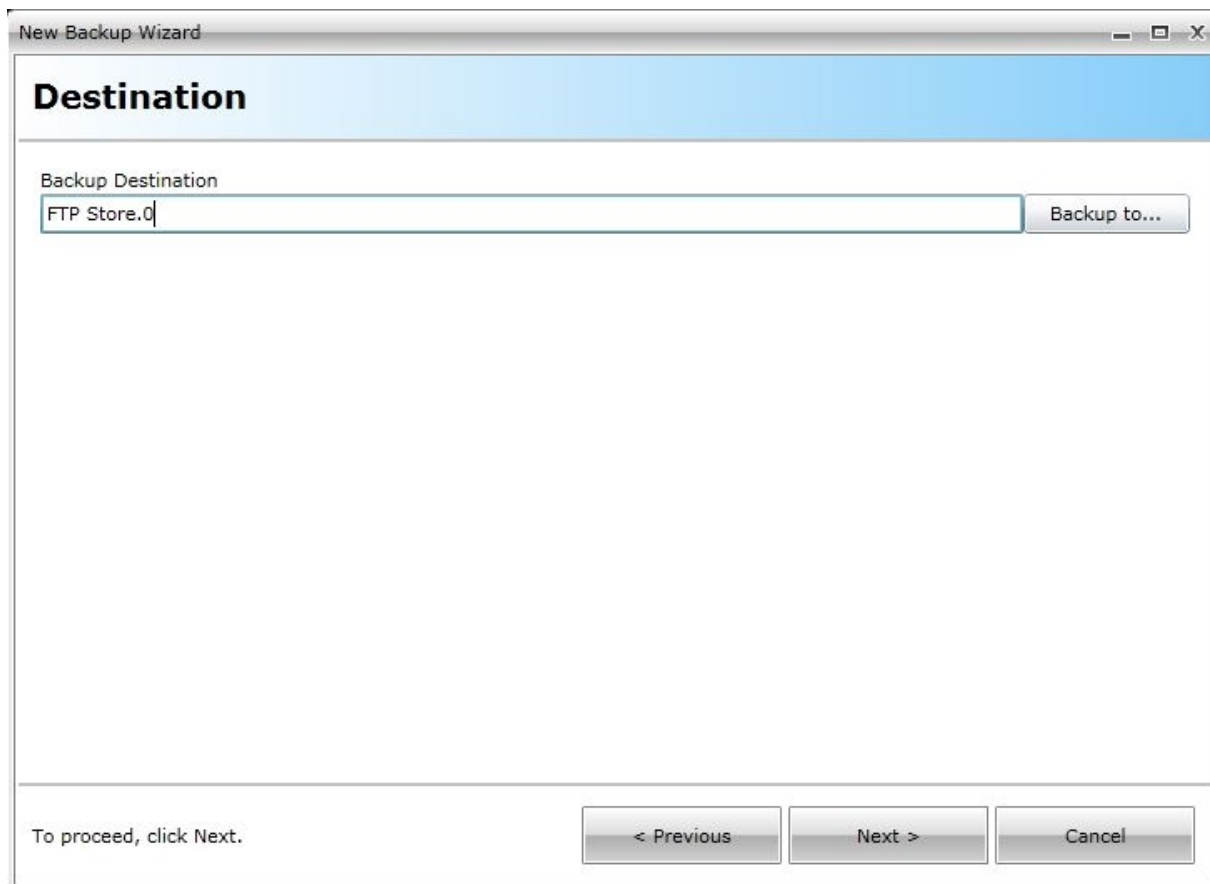
Media name:

network

To proceed, click Next.

< Previous Next > Cancel

FTP devices will look like the below destination example:



New Backup Wizard

Destination

Backup Destination

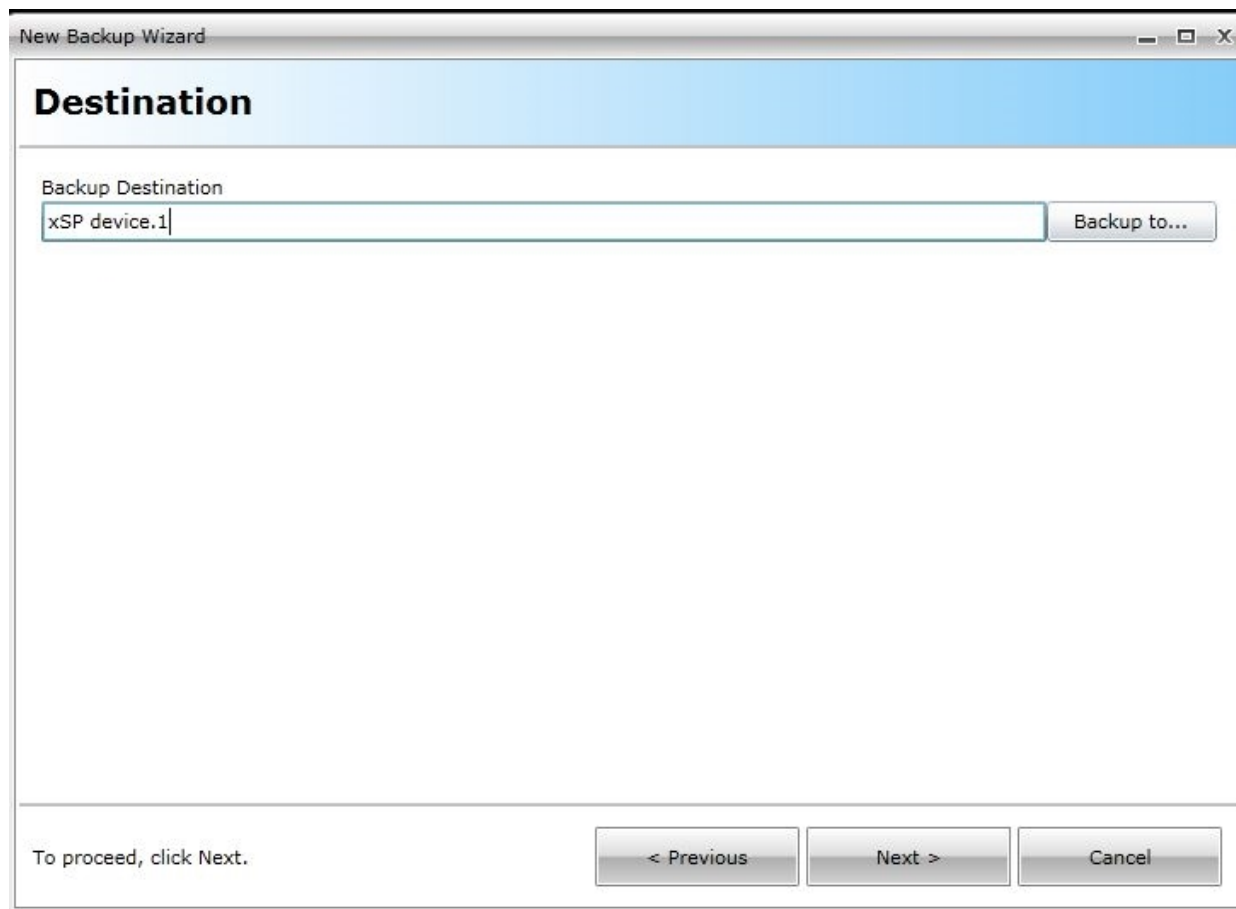
FTP Store.0

Backup to...

To proceed, click Next.

< Previous Next > Cancel

Lastly, xSP devices will look like the following:



New Backup Wizard

Destination

Backup Destination

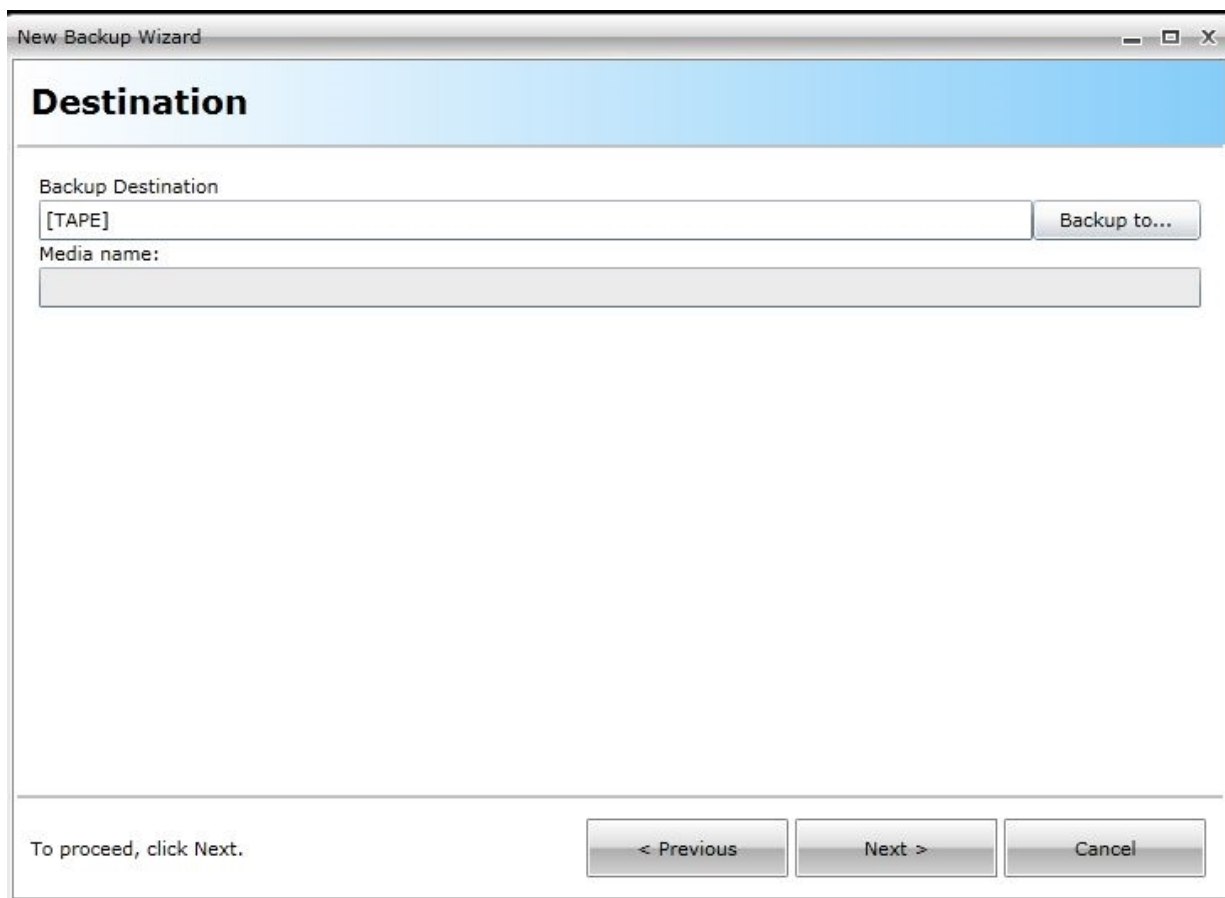
xSP device.1

Backup to...

To proceed, click Next.

< Previous Next > Cancel

One of the challenges when dealing with backup policies applied to groups is that unless there is a specific naming convention that is enforced with user addable devices they might not be named the same. In order to combat this issue a little, the CMC is able to deal with some device variables. The device variables that are currently available are the following: [TAPE] for the first tape drive attached to the agent, [FTP] for the first FTP device configured on the agent, [AMZ] for the first Amazon S3 device configured on the agent, and finally [XSP] for the first xSP device configured on the agent. Below is an example of the usage of device variables.



New Backup Wizard

Destination

Backup Destination

[TAPE] Backup to...

Media name:

To proceed, click Next.

< Previous Next > Cancel

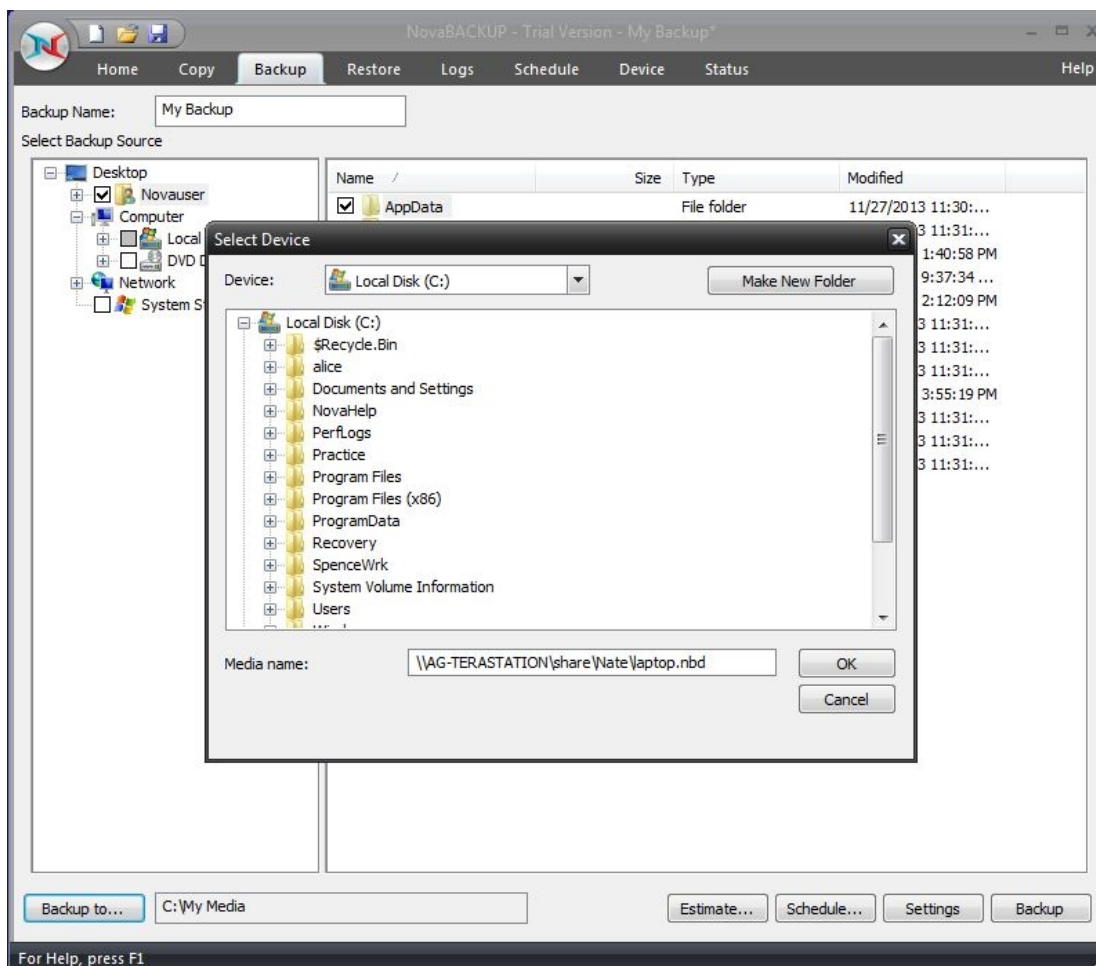
Selecting a UNC Path as Destination for Backup

This description and screenshot applies to NovaBACKUP 12.2 and above.

CMC users may also select a destination via an agent.

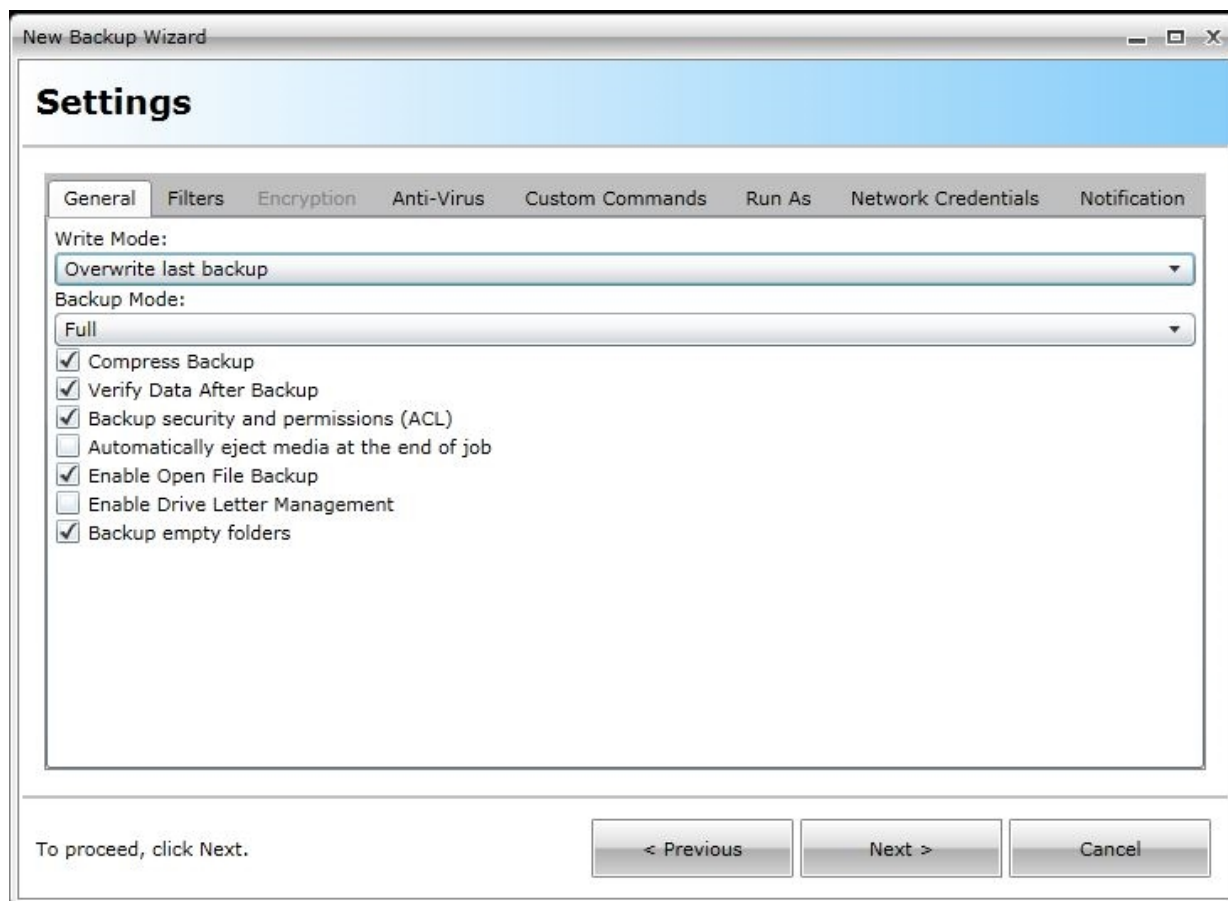
In version 12.2 of NovaBACKUP and above, the option to use a UNC path as the destination for the backup job has been made much simpler. Instead of having to either map a network drive or browse through the network, you are now able to simply paste in the UNC path to where you want the backup to go. In order to do so, you must be in the *Advanced View* and on the *Backup* tab. After doing so, choose a local device, such as the local disk C drive. The 'media name' field will be populated at that point. This is where you overwrite the text with your UNC path, along with the name of the backup file you want to backup to. The screenshot below shows an example of this process.

*Please note: If you are going to schedule a backup to a UNC path or any network location, make sure to have it run as a specific user, and fill in the username and password field in the schedule when you create it.

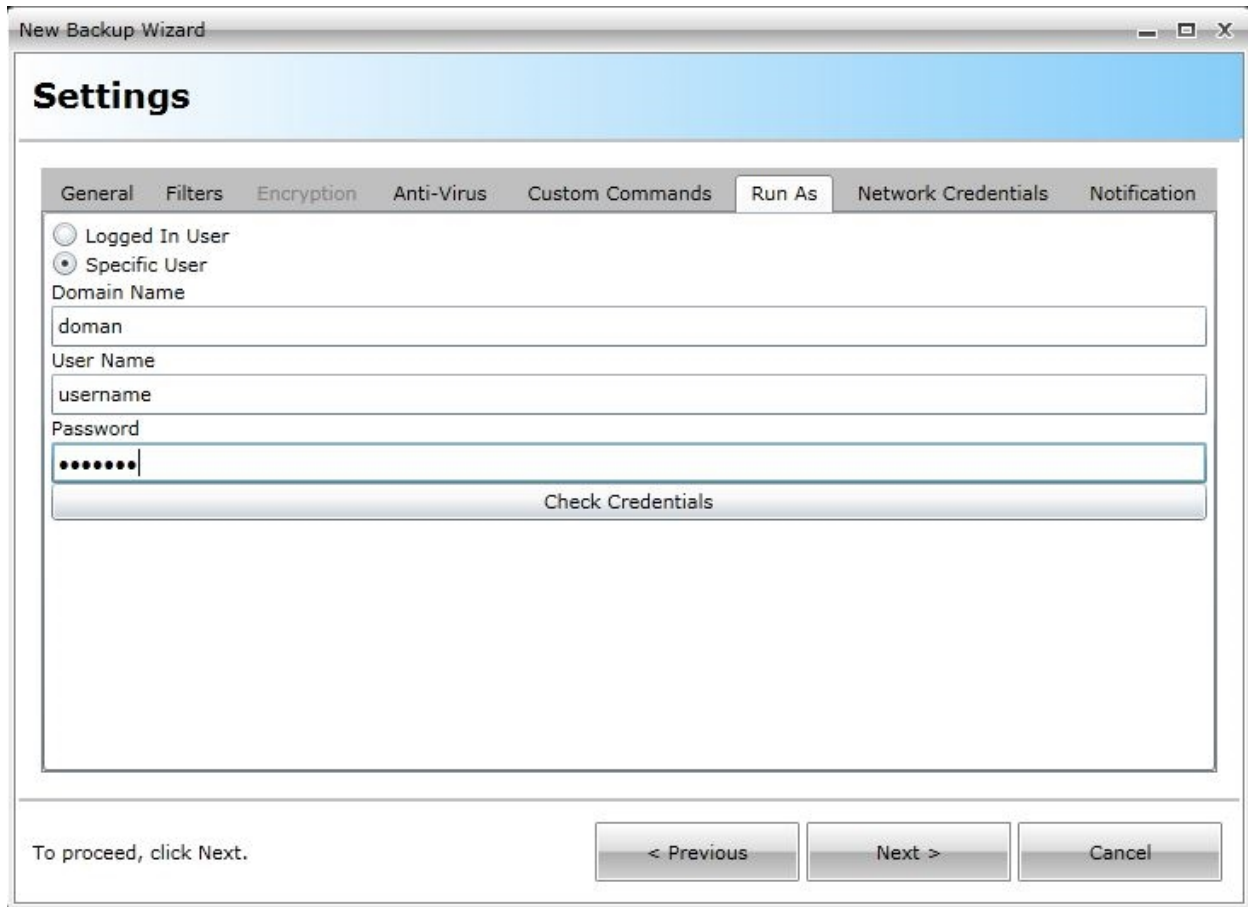


Determining the Settings for the Backup

Now that the selections and device are selected for the backup, it is time to determine the settings for the backup. The CMC includes almost every setting that the NovaBACKUP client has and the settings work the same as if they were set on the NovaBACKUP client.



One thing to be particularly careful of when setting the settings is that the **Run As** tab determines what user the backup will be impersonated as. If nothing is specified here and no one is logged in, the backup will run as the local system account, which may not have the correct rights to backup from or to where it is expected to.



New Backup Wizard

Settings

General Filters Encryption Anti-Virus Custom Commands **Run As** Network Credentials Notification

☐ Logged In User
☒ Specific User

Domain Name
doman

User Name
username

Password
.....

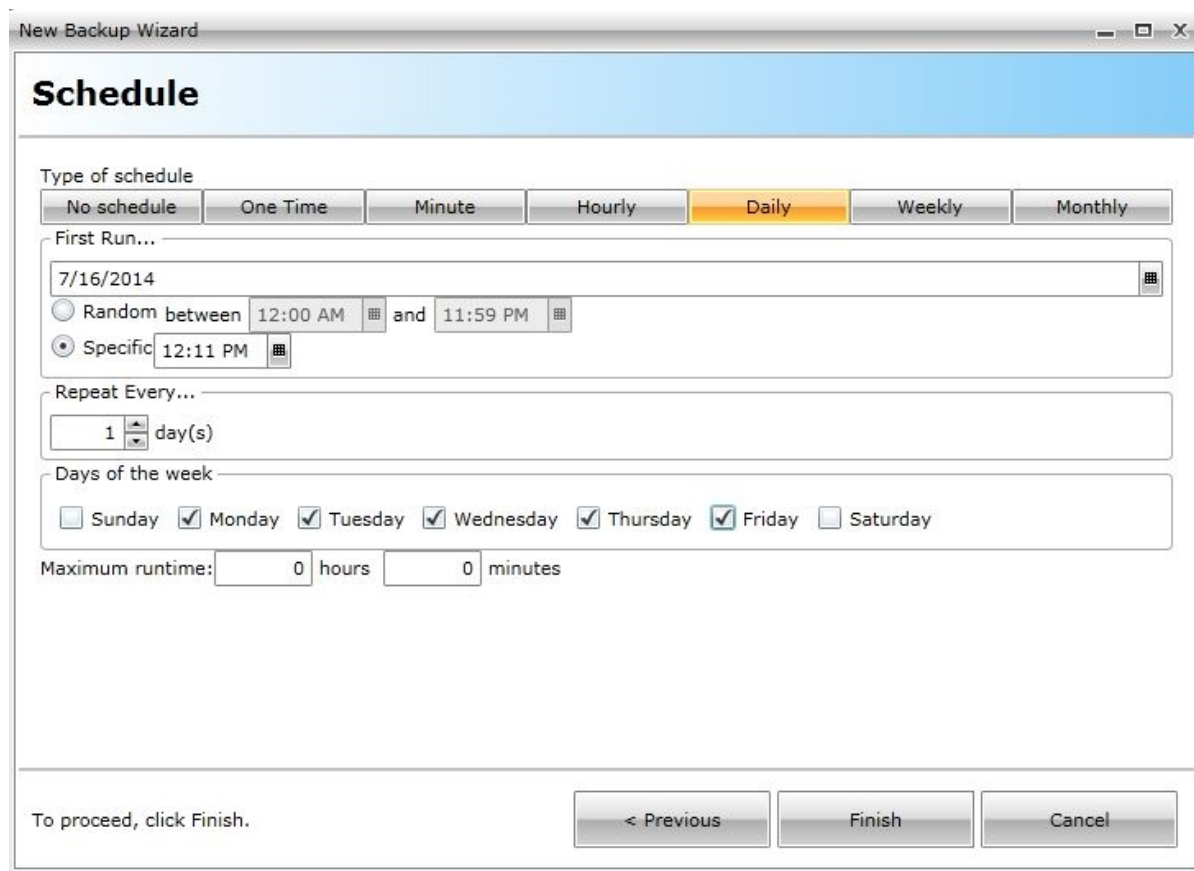
Check Credentials

To proceed, click Next.

< Previous Next > Cancel

Setting up a Backup Schedule

The final step in creating a backup policy is to define the schedule. All of the options that are available in the NovaBACKUP client software are available in the CMC. One option that is not in the NovaBACKUP software that is in the CMC is the option to schedule a random time for the backup to be scheduled at. What random means in the CMC is that when the schedule is grabbed by the agent the CMC tells the agent to create a random schedule between the two times and apply that as the schedule. This means that once the schedule has been created on the agent it will run at the random time that it generated when the CMC told it to schedule the backup. This particular option is very nice when you have many agents that are going to be using the same backup policy but you do not want them to overload the network and all start at the same time. One final thing to note about schedules is that when a schedule is sent from the CMC to the agent it is of the CMC server's time, so if the CMC server's time is different such as in a different time zone than the agent makes sure to account for that when creating the schedule.



New Backup Wizard

Schedule

Type of schedule

First Run...

7/16/2014

☐ Random between 12:00 AM and 11:59 PM

☐ Specific 12:11 PM

Repeat Every...

1 day(s)

Days of the week

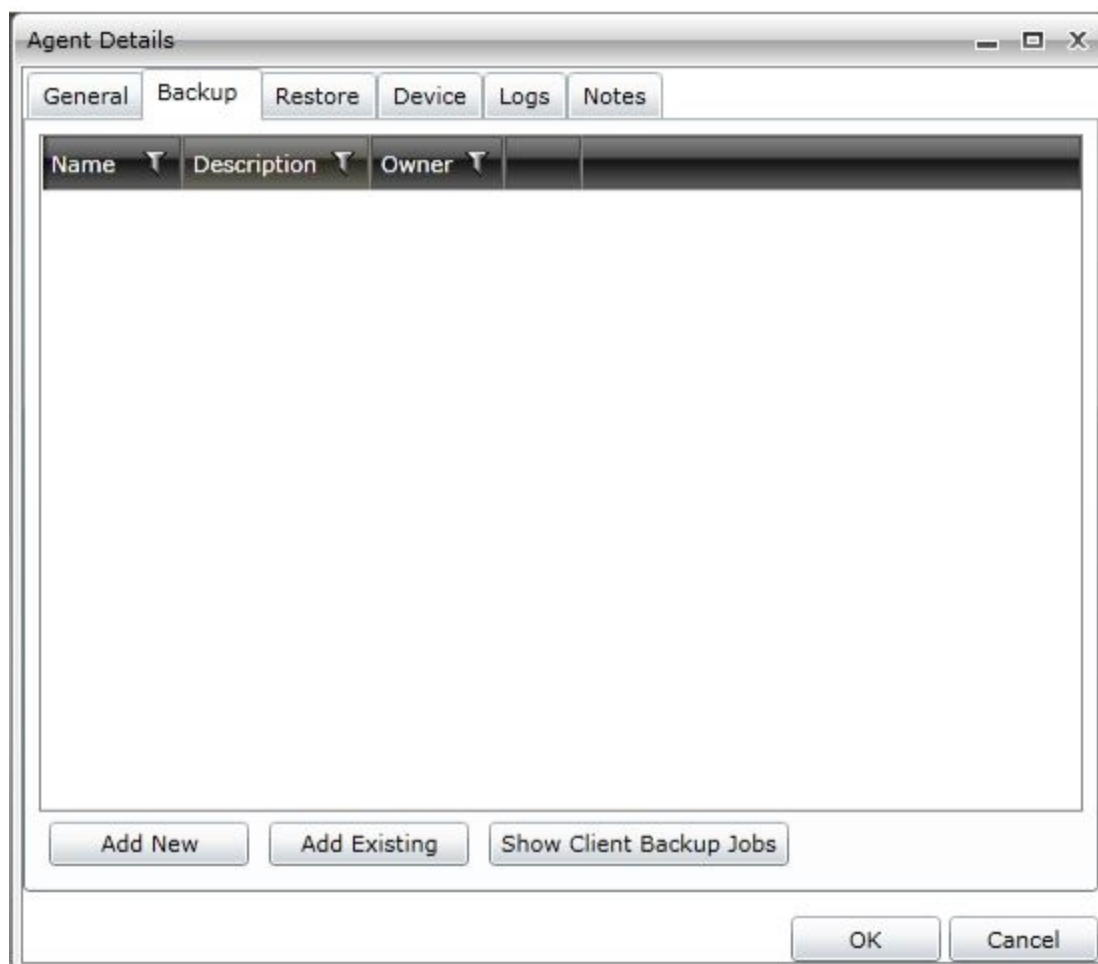
☐ Sunday ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday ☒ Friday ☐ Saturday

Maximum runtime: 0 hours 0 minutes

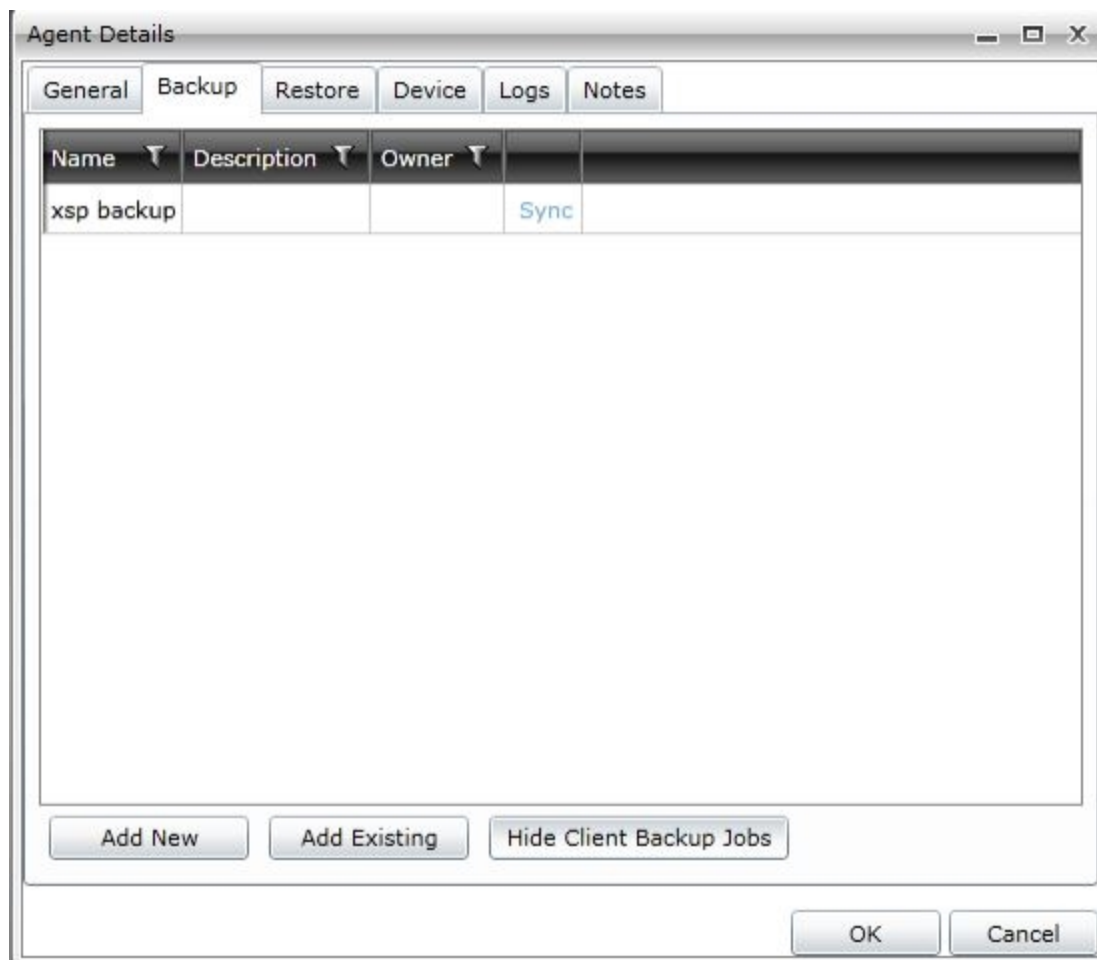
To proceed, click Finish.

< Previous Finish Cancel

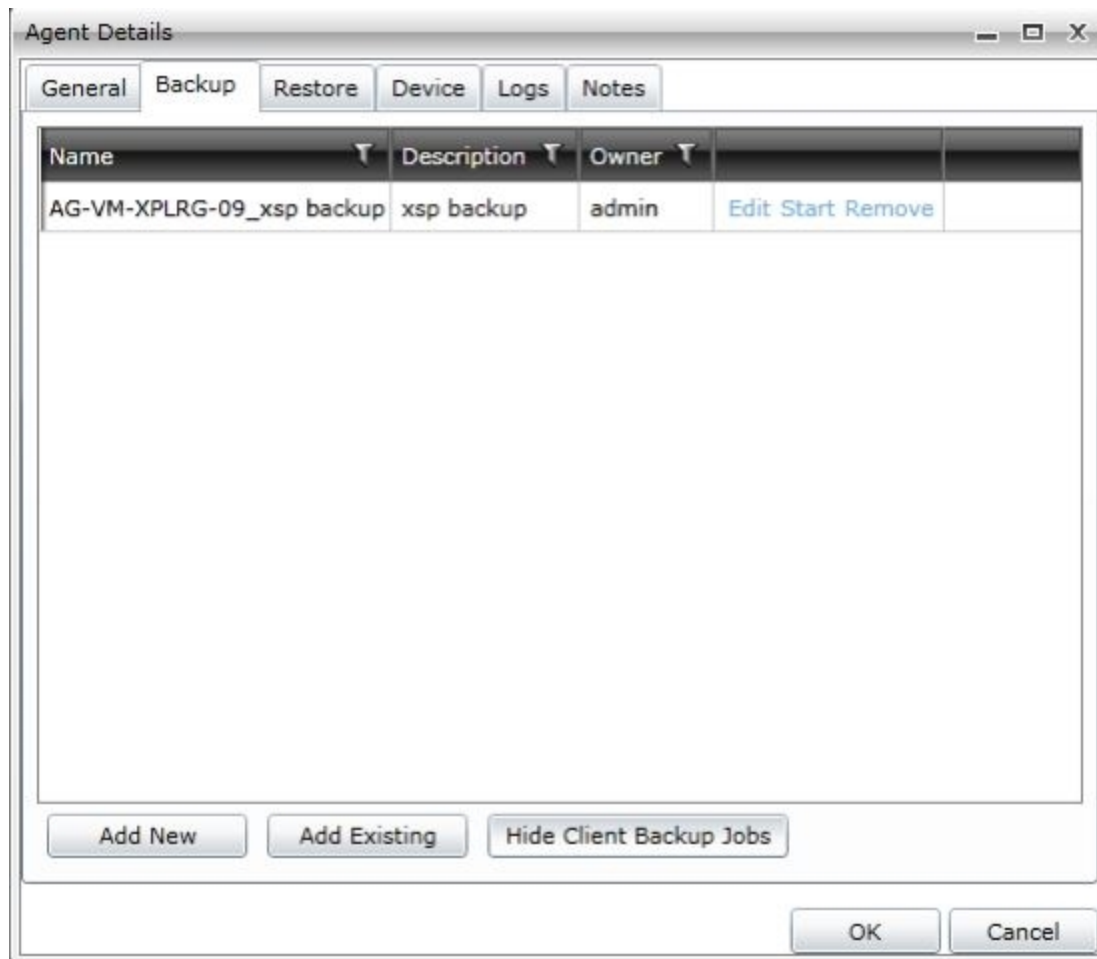
From the CMC UI, you need to view this agent's properties and go to the *Backup* tab of the interface. From there, click the 'Show Client Backup Jobs' button.



You will now have the option to sync the backup policy to the CMC by clicking the Sync link.



After the sync is done, the schedule and backup job will be deleted from the client side, and a new backup policy from the CMC will be saved and sent down to the client.



Restore Wizard Configuration

Where the Restore Wizard Resides

The Restore Wizard is only available at the agent level, and only when the agent is online. The Restore Wizard will show all available media that is able to be restored from. At which point the piece of media can be drilled down through and select the files and folders that are needed to be restored.

Settings

The settings that are available during the restore wizard are almost identical and work the same way that restore options do in NovaBACKUP.

Technical Reference

Windows environment variables can only be used to define custom selections and must be in the form of <env variable>. An example of this would be <userprofile> for the Windows environment variable of <userprofile>.

Backup destination variables can be used instead of manually selecting a particular configurable device. The device variables that are currently available are the following:

- **[TAPE]** for the first tape drive attached to the agent
- **[FTP]** for the first FTP device configured on the agent
- **[AMZ]** for the first Amazon S3 device configured on the agent
- **[XSP]** for the first xSP device configured on the agent.

CMC server service logs can be found at C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\Logs

CMC SQLite database can be found at C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Database

Agent CMC script location is located at C:\ProgramData\NovaStor\NovaStor NovaBACKUP\Profiles or C:\Documents and Settings\All Users\Application Data\NovaStor\NovaStor NovaBACKUP\Profiles depending on the operating system. This file is the determining factor on whether or not the agent needs to download new or changed backup policies.

Troubleshooting

The "Management Server" windows service configuration file is used for troubleshooting.

For example, with a default installation, it is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\ManagementServer.Service.WindowsServiceHost.exe.config".

When this file is modified, the internal services will automatically restart and use the latest changes. If the configuration file contains errors, the windows service will not start. If the windows service is already started, it will automatically stop. In both cases, errors will be logged in the app_tracelog.svclog file in the Logs directory. For example, with a default installation, it is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\Logs".

If using the standalone web server, the "Management Web Server" windows service configuration file is used for troubleshooting.

For example, with a default installation, it is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web\bin\ManagementServer.WebServer.WindowsServiceHost.exe.config"

These files can be edited in a simple text editor (ex. notepad).

The Management Service may not be started

The Management Service must be started to be accessible. Run the Services control panel and start the "Management Service" windows service. If it fails to start see the "How to enable logging for the 'Management Server' windows service" section in this topic for trouble shooting.

The Web Server may not be started

The Web Server must be started to be accessible. Depending on which web server hosts the console application, run the Services control panel and start the appropriate windows service:

- If using the standalone web server, start the "Management Web Server" windows service. If it fails to start, see the "How to enable logging for the 'Management Web Server' windows service" section in this topic for trouble shooting.
- If using Internet Information Services (IIS), start the "World Wide Web Publishing Service" windows service.

A firewall may be blocking one or more required ports

If the Management Service is behind a firewall, make sure its configured port is open. The port number was specified during installation and saved in the "Management Server" window service configuration file. You can launch the Server Administration utility to quickly view and optionally edit the port number. The Management Service uses the TCP protocol.

If the web server is behind a firewall, make sure its configured port is open. The port number may have been specified during installation and saved in the "Management Web Server" windows service configuration file if the standalone web server was selected.

The Management Service address may be incorrect

The Management Service address must be configured correctly to be accessible. The server address was specified during installation and saved in the "Management Server" windows service configuration file. You can launch the Server Administration utility to quickly view and optionally edit the server address.

How to enable logging for the "Management Server" windows service

Open the "Management Server" windows service configuration file, perform the steps outlined below, and then save the file. This generates a fairly large amount of trace data in the Logs directory. After you are done troubleshooting, remember to revert your changes.

Enable Log Listeners

Enable logging to the Application Event Log and a Flat File.

Change this:

CopyXML

```
<configuration>
...
  <loggingConfiguration ...>
...
    <categorySources>
<add switchValue="All" name="General" />
</categorySources>
...

```

To:

CopyXML

```
<configuration>
...
  <loggingConfiguration ...>
...
    <categorySources>
<add switchValue="All" name="General" >
<listeners>
<add name="Event Log Listener" />
<add name="Flat File Trace Listener" />
</listeners>
</add>
</categorySources>

```

Enable WCF Verbose Activity Tracing

Set the switchValue attributes to Verbose, ActivityTracing.

Change this:

CopyXML

```
<configuration>
...
  <system.diagnostics>
<sources>
<source name="System.ServiceModel" switchValue="Warning"
propagateActiv          ...
      <source          name="System.ServiceModel.MessageLogging"
switchValue          ...
```

i =

To:

CopyXML

g =

Enable Message Logging

```
<configuration>
...
  <system.diagnostics>
<sources>
<source name="System.ServiceModel" switchValue="Verbose,
ActivityTracing ...
  <source name="System.ServiceModel.MessageLogging"
switchValue ...
<configuration>
...
  <system.serviceModel>
...
    <diagnostics>
<messageLogging logMessagesAtServiceLevel="false"
logMalformedMessages= ...
```

Enable logMessagesAtServiceLevel, logMalformedMessages, and logMessagesAtTransportLevel.

Change this:

CopyXML

To:

CopyXML

```
...
  <diagnostics>
<messageLogging logMessagesAtServiceLevel="true"
logMalformedMessages= ...
<configuration>
...
  <system.serviceModel>
```

How to enable logging for the "Management Web Server" windows service

Open the "Management Web Server" windows service configuration file, perform the step outlined below, and then save the file. This generates a log.txt file in "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot" for example. After you are done troubleshooting, remember to revert your changes.

Enable Log Listeners

Enable logging to a Flat File.

Change this:

CopyXML

```
<configuration>
...
  <loggingConfiguration ...>
...
    <categorySources>
...
      <add name="Info" switchValue="All" />
    </categorySources>
...

```

To:

CopyXML

```
<configuration>
...
  <loggingConfiguration ...>
...
    <categorySources>
...
      <add name="Info" switchValue="All" >
<listeners>
<add name="Flat File Destination" />
</listeners>

</add>
    </categorySources>
...

```

Contacting Technical Support

Whether you contact us via the phone or via the Support Request Form, we will promptly log your support request and quickly assign your issue to the appropriate support engineer. The following sections detail the life cycle of a support request and explain best practices, our processes and your options as the issue progresses. Here are general recommendations for contacting us by phone, e-mail, and website.

Our support engineers or help-desk operators will ask you a number of standard questions when troubleshooting your issue. Please have the below listed information before contacting NovaStor support. We need this information to diagnose problems and quickly log your request.

Contact Information: Name, Company name, Customer ID, Ticket ID(if you sent a prior request), Telephone, fax, e-mail, or other contact details where you can be contacted if you have not provided this information earlier or you are contacting NovaStor for the first time.

Computing Environment Information:

- System specifications and operating system
- Product name and version
- Build number
- System configuration

Please describe your problem in an accurate and detailed manner so that our support Engineers can assist you in the shortest possible time.